The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER

Issue **56** December 1995 **£4.25**

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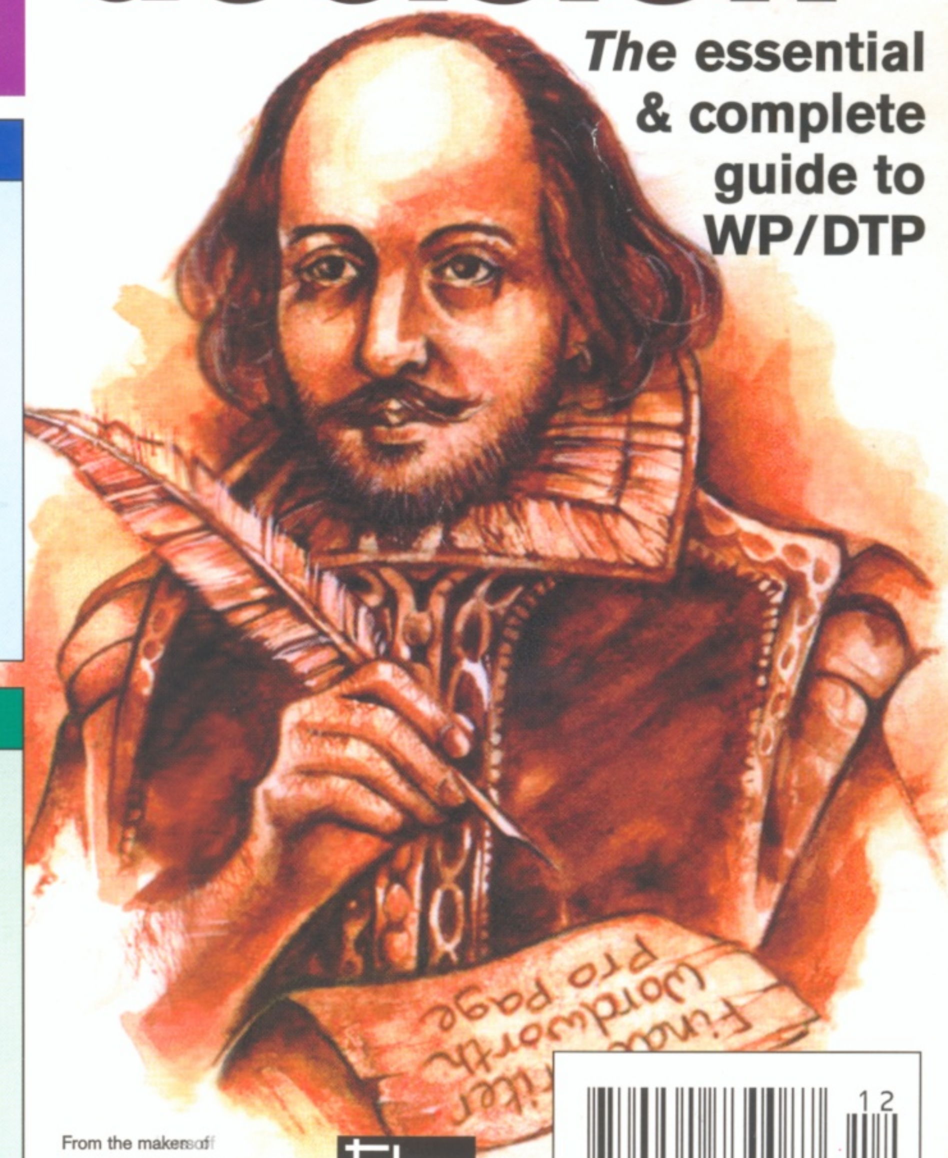
Aural **Illusion**

Full details of disks on back cover

Over 5Mb!

The write decision

***The* essential & complete guide to WP/DTP**



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- Imagine 3.3: The latest version of this popular 3D package gets put through its paces as we ready ourselves for the much-awaited release of Imagine 4.
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AMIGA SHOPPER

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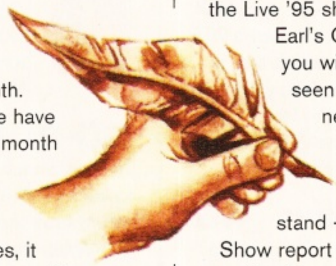
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56

Inside issue

We have another feature-packed issue for you this month, and I'm here to tell you all about it...

Yes, our cover price has gone up by 26p to £4.25. I know we said we would keep the price as low as possible for as long as possible. Well, we have. But now, to stay competitive, we couldn't avoid a small price increase. And it is small. Just think of all the features and tutorials we bring you every month. Just think of all the great stuff we have for you on our Coverdisks every month too. There's 5½Mb on this month's disks – which saves you a lot of money – if you got these programs from PD Libraries, it would cost you £1 *per* disk! So, we still give you excellent value for your money – you can't deny it.

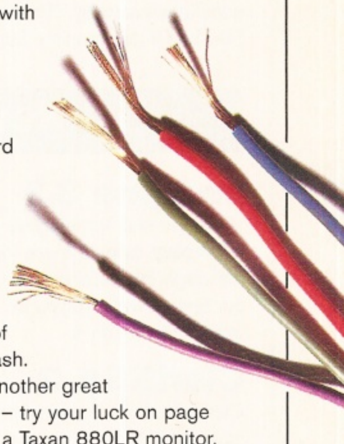






Anyway, enough about that, on to this issue. If you went to the Live '95 show at Earl's Court, you will have seen the new Amiga Magic bundle on display, and you may even have spoken to David who was on the stand – if you missed it, we have a Show report on page 14.

John Kennedy shares his experiences of networking Amigas with you on page 20, while Larry examines the latest versions of all the Amiga DTP and word processing packages on page 26. Then there's Mojo's second 3D tutorial, where he encourages you to spend some more of your hard-earned cash.



We also have another great competition for you – try your luck on page 45 – you could win a Taxan 880LR monitor, worth £700!

As for the Coverdisks, we have the full version of Aural Illusion, the sample editor and effects package, and there's F1 Licenceware's popular image processing program, Blackboard 3. There's plenty of other essential programs and utilities to keep you going too. ■

Sue Grant
Editor

Turn the page for the contents of issue **56**

How to contact Amiga Shopper

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E-mail: amshopper@cix.compulink.co.uk

EDITORIAL: Send all press releases, feature submissions and ideas to Sue Grant.
E-mail: sgrant@futurenet.co.uk

COVERDISKS: If you have a contribution, commercial or otherwise, that you would like to submit for consideration for the Coverdisks, send it to David Taylor.
E-mail: amshopper@cix.compulink.co.uk

READER ENQUIRIES: Amiga Shopper is available for phone enquiries every Wednesday between 10 am and 5.30pm. Please make sure your call is necessary. ☎ 01225 442244.

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Turn to page 68 for a subscription to Amiga Shopper (page 69 for a back issue). If you already have a subscription, but have a query, write to: Future Publishing Ltd, FREEPOST (BS4900), Somerton TA11 6BR, or ☎ 01225 822511.

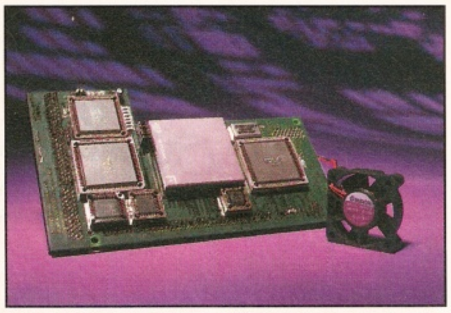
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AMIGA SHOPPER

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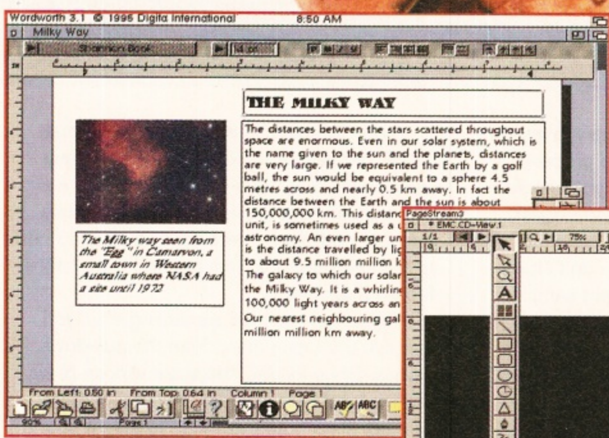


The dual-speed CD-ROM drive from Media Vision combines portability with audio.

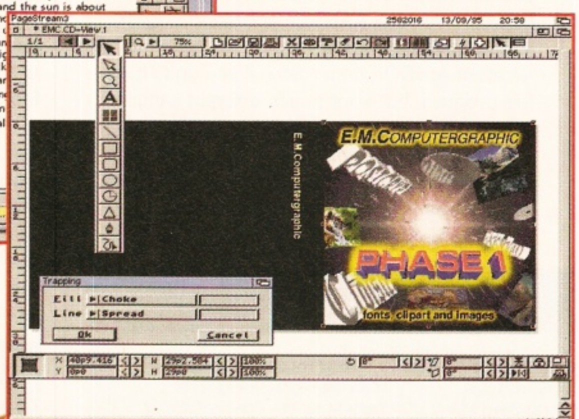
The write decision ___p26

What's the difference between WP and DTP? Which packages are best for the job? Are the latest versions worth their weight in gold, or are they much ado about nothing? Amiga Shopper turns its renowned and respected Supertest towards the popular area of word processing. Once more into the breach we go, taking a good, long look at what we know is of immediate interest to our readers.

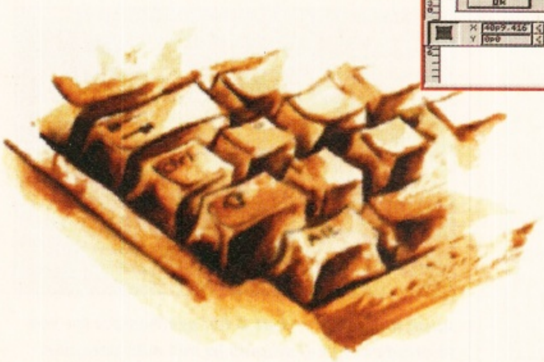




Find out what the new Wordworth 3.1 revision 2 has to offer.



We look at the latest version of PageStream. See page 26.



Shopper**Disks**

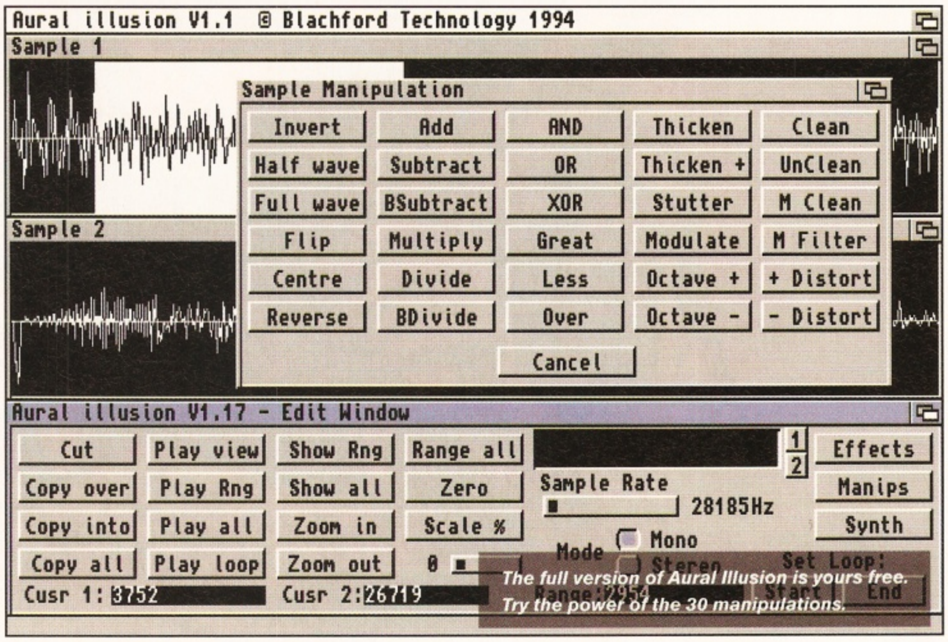
Amiga Shopper's Coverdisks are not just any old two disks. There are seven specially-selected disks packed on to these two beauties. Here're the contents:





Disks 1&2

An unbelievable 5½Mb are stored on this month's Coverdisks. **David Taylor** *delivers the goods into your hands.*



The full version of Aural Illusion is yours free. Try the power of the 30 manipulations.

Create something special, Dave, they said. Make us proud. Which is why this month's disks are so hot they're probably burning your hands. We've got a complete sound sample editor, a full Licenceware graphics program, three more applications, seven utilities, another eight offerings for tech-heads, a set of macros and ARexx features for Final Writer, a fractal generator, 3D objects, a guide to the Amiga's library system and a programming utility. Sounds impressive? So does our full commercial package, Aural Illusion, which is where we'll start...

Aural Illusion 1.17

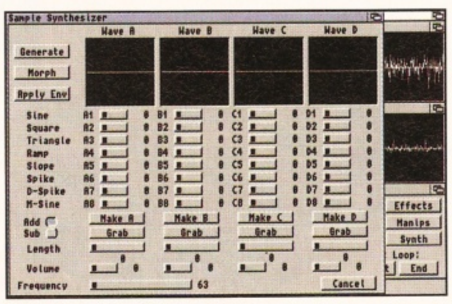
Aural Illusion is a sample processor which can edit samples and create new ones in its built-in synthesizer. For quality, samples are held in 16-bit resolution in memory and all processing is in 32-bit resolution.

It doesn't support direct sampling, but you can obviously load samples that you've made with a sampler and its software into the program. If you don't have a sampler, there are some samples provided on this disk in the Samples Directory, or you can use any that you have collected from other Coverdisks, or get some more from a PD library (most have extensive collections).

Samples can be loaded and saved as IFF 8-bit, AIFF 16-bit, SAFF 16-bit, RAW 16-bit and RAW 8-bit. RAW 16-bit LSB is also supported to allow you to load 16-bit PC samples, such as VOCs and WAVs (if you do this, note you must use Manipulation Invert to hear them properly). If you have other sound formats, then you should convert them with a sample convertor – it just so happens that regular readers will have the excellent AmiSOX from AS53. If you don't have this program, but want to use different sample formats, you can order a back issue – turn to page 69 – or you should be able to obtain it from most PD libraries. But we're getting ahead of ourselves – that's for when you want to expand your sample library.

Aural Illusion has a native 16-bit format, SAFF that has been designed to be as fast as possible. There are two ways to load a sample into Aural Illusion. The first is to use the Load buttons – there are two situated next to the message box. This method loads mono 8-bit IFF samples.

If you want to load something else, you can use the Open menu from the pull-down menus. Once loaded, there are various basic editing functions; including cutting, copying, zeroing, playing and viewing. To stop a sound playing, press one of the Play buttons again (note that it may not stop instantaneously on slower Amigas).



Aural Illusion contains a full synthesizer for you to create original sounds to mix with samples.

Installing software

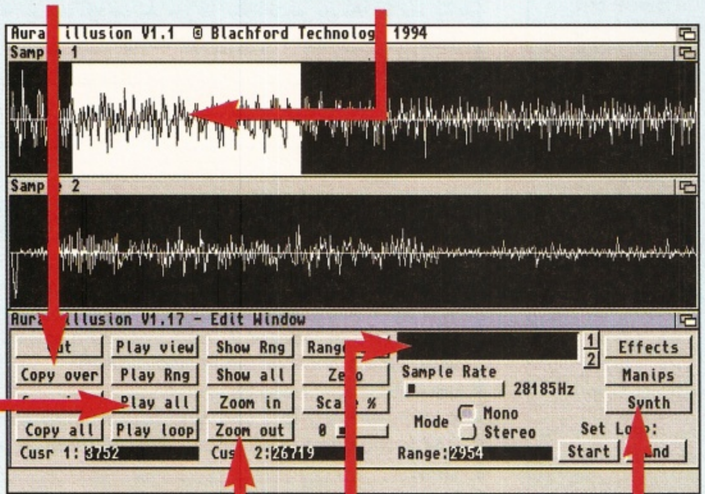
When you've de-archived the Coverdisks, you must always remember that some of the programs then require you to install them. This normally means copying a library or font to the appropriate path on your system disk (either your Workbench disk or partition on a hard drive). This is because the Amiga's Operating System looks in specific places for certain type of files, like libraries. So, if you have a problem with any program on any Coverdisk (or any disk for that matter), try reading the documentation to see whether certain files have to be in specific places. If they do, it's likely there will be an installation icon (which might require you to have the standard Commodore Installer program in your c: directory), but you may have to copy the files manually – the docs will have the details.

For those readers who have had problems with installing the Coverdisks at all, the answer is very simple. You must boot the Coverdisk, i.e. put it in the internal drive and then switch the Amiga on. You need several spare disks ready (or they can be installed to a hard drive). This is explained in our Beginners' boxout, but it appears that some people haven't bothered reading it!

Aural Illusion Interface

The Cut and Copy bank of buttons employ an advanced copy into/over.

The two sample windows show the buffers. The white section designates a range.



The Play bank has a variety of options. Pressing the button a second time cancels the playback.

This bank allows you to view portions of the sample buffer. Magnify small samples.

This window shows progress. Below it is the rate – adjust if the sample is slow/fast.

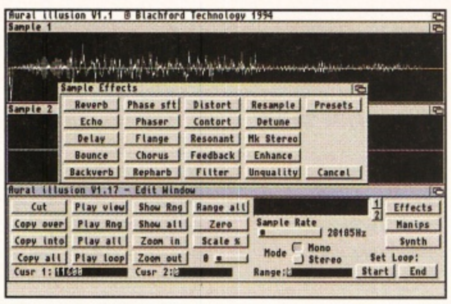
These three buttons open the other windows pictured on these pages.

The copying function is slightly more advanced than the basic copy/paste system and so deserves a quick explanation. Copying is done by ranges and points. You select a range on one sample (by dragging the mouse button across the range you want) and then select a point on the other sample. You then press Copy Over or Copy Into. The former copies the range over whatever is after the selected point, while the latter copies the range into the same area, but then pushes the remainder of the sample along.

There are then 20 effects and a set of presets for these and 30 Manipulations (some require two inputs). The difference between Effects and Manipulations is that Effects are variable and can be adjusted, whereas Manipulations are fixed. Dual input Manipulations work in the opposite manner to the copying process. You select a point, then a range and the range is affected by the data after the point.

There is also a Morphing Wave Synthesizer. This allows you to create some basic waveforms which change over time. These are sounds that are not entirely useful by themselves, but can be changed using Effects and Manipulations to create much more powerful sounds.

Aural Illusion's menus contain several more functions, such as the Filter toggle. The ones that might need a little description include Rescale, which maximises the volume of a sample, and Swap Byte Order which is useful for making white noise. ■



The 20 Effects are variable so you can make many different changes to sounds.

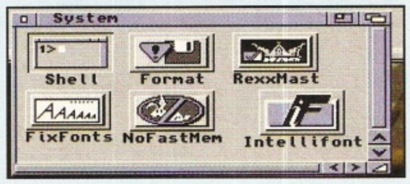
Hints and tips

- **If you load one of the samples included on the disk, you will notice that it appears only as a slight bump. This is because you are viewing the full sample window. To see the sample in more detail, load it into a selected range, or select the small sample after it is loaded and view the range.**
- **If a sample sounds too fast or slow, just alter the sample rate.**
- **The Play buttons actually play the samples in different ways. Play View plays the view in mono; Play Rng plays the range in either mono or stereo; Play All plays the entire buffer in mono or stereo; and Play Loop plays the current loop in mono or stereo.**
- **Loading and saving in stereo is determined by you. There is a radio button below the message box labelled mono/stereo. If a stereo sample is loaded in mono mode, it will be loaded, but will sound slow and noisy, while a mono sample loaded as stereo will sound fast and distorted. You can, of course, use this for effect and deliberately 'misload' a sample.**
- **When loading or saving stereo, a range is used like mono, but the equivalent area from the second buffer will be loaded or saved.**
- **Playback may stutter if multi-tasking and drain CPU power, especially on 68000s. A500+/A600s users may want to use a separate, smaller sample player to hear the samples.**

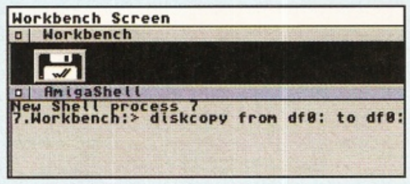
Beginners, look!



Before using either of this month's Coverdisks, please be sure to back them up – just in case. Simply follow the easy instructions below.



1 *Boot up from your Workbench disk or partition, double-click on your Shell icon – to be found in your System Drawer.*



2 *If you only have one disk drive, type in the following line and then press Return.*

```
Diskcopy from DF0: to DF0:
```

If you have two drives, place the Coverdisk in DF0: and a blank in DF1:, then type in this line instead:

```
Diskcopy from DF0: to DF1:
```

3 *Follow the on-screen prompts and remember that the Coverdisk is the source disk and the blank is the destination.*

4 *If you used the two-drive method, remember to rename the copy by clicking on its icon and pressing right-Amiga r.*

5 *If you have two drives, you can also copy the disk from Workbench by dragging the Coverdisk icon over the destination disk's.*

6 *Then place either of the Coverdisks in df0: and reset the Amiga to boot it. It is best to boot disk 1 (or the Subs disk if you're a subscriber). This will let you install all the disks to either floppy or hard drive.*

Dodgy disk?

To avoid errors when installing to floppies, ensure that your destination disks are of high quality. If an error occurs, try re-booting and using a different spare disk – the majority of errors are caused by faulty destination disks.

If your Coverdisk absolutely refuses to work and you are certain it is faulty, please return it, along with an S.A.E., to:

Amiga Shopper Coverdisk
(insert the name of the disk),
Discopy Labs Ltd., PO Box 21,
Daventry NN11 5BU.

▶ 8



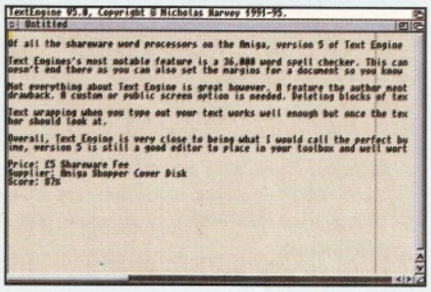
Subscribers Disk

Every month Amiga Shopper produces three complimentary disks. The third disk is sent out FREE to Subscribers and brings the total amount of data given away to a massive 8Mb.

This month's Subs disk is an absolute stormer. There is another full Licenceware package, Ultimate Quiz, making a total of three full packages. Then there's a fully-featured Text Editor, Text Engine 5, with a full dictionary and no limitations. There's Ordering, a brilliant file manager that stands out because of its external Preferences program which makes configuration a doddle. There's a cool audio CD player for those with CD-ROM drives and there's also a new module player. We've included four modules for people to play with and add to their collection.

Then there's TBClock and F1guide, a titlebar clock and a guide to Formula One for racing fans. The icing on the cake is a nifty collection of bitmap fonts and clipart to top off our word processing theme.

So don't miss out ever again. Subscribe today, get a third disk FREE and save 60p per issue to boot. See page 68 or ☎ 01225 822511.



Text Engine 5 – a complete Text Editor, is just one of the great programs on this month's Subscribers disk.

HiSoft BASIC special offers

We had HiSoft BASIC on our Coverdisks last month and you can still take advantage of the special offers that featured in that issue.

Title _____ Initials _____ Surname _____

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Description	Quantity	Price	p&p
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Aural Illusion and Aural Synthetica offers

We've given you the full version of Blachford Technology's Aural Illusion 1.17 on the Coverdisk this month, and now you can take advantage of some great special offers from Seasoft Computing.

Aural Illusion v2.02

Aural Illusion v2.02 is a much improved update of the first version. New features include 30 effects, 55 manipulations, an improved synthesizer – which is now easier to use and has a phase control for better sounds – then there are new file formats, plus a whole load of other new functions.

In our music Supertest in the October issue, John Kennedy had this to say about Aural Illusion: "If you want to make the most out of the samples you already have – or create some new ones – this program will give you scope for experimentation".

Now Aural Illusion can be yours for £5 off the usual price of £20. Just cut out the relevant voucher below and post it off to Seasoft with the order form. You can only take advantage of this offer if the voucher is enclosed.

Aural Synthetica

We have another special offer too. You can also save £5 off the normal price of £30 when you purchase the new sample generation program Aural Synthetica from Seasoft. This program allows the user to create their own synthesizer set-ups, so you can produce brand new sounds. It creates anything from simple blips to monster analogue-style lead sounds.

Aural Synthetica requires Workbench 2 or higher and 2Mb RAM. An accelerator and more RAM are recommended. Remember to include the voucher below with your order.

Title _____ Initials _____ Surname _____

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Description	Price
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ShopperChoice

Aural Illusion is just the beginning. This month's disks have got tonnes more packed on to them. More applications, utilities, programs, 3D objects and tutorials... The list is seemingly endless, but somehow we're going to squeeze a quick guide on to the following three pages.

ApplicationZone

DB2.8

Databases are one of the best features of every computer. They allow you to store information easily and logically and retrieve it quickly.

DB has been around for quite some time and has undergone major upgrading and tweaking during its lifetime. Entering the data is simple to do in this program. You can browse the data and easily add new entries or update others. DB offers much more than a simple fixed-style database though. You can configure the fields to your own needs and create custom databases. To do this, you just need to set up a new database, telling it the fields. This can be done easily by using a word processor and saving the file as ASCII. This type of file format is known as RFF and is fully documented in the guide to the program that is included with the package.

The program has lots of features including handy on-line help. You should note that DB2.8 is not crippled in any way, but the author does ask you to send him a postcard – that's not too much to ask is it?

Shareware notice!

Remember that a number of the programs on these disks are some form of Shareware. AS have compiled the disk with the help of the authors, who have received no fee from us. So, if you keep and use these programs, you *must* register. Some people only want a postcard, so *please* put in the effort. They did when creating the program.



PicView is a very useful picture cataloguer that can handle any images via datatypes.

PicView

The release of InfoNEXUS 2 included a rather neat feature of picture browsing, which was achieved by using a cataloguer and viewer. It's very useful and one of the program's strongest points. PicView performs the very same function and so when we found it, we just had to include it. It does require MUI and makes use of datatypes, so it's a Workbench 3 and above program only, I'm afraid.

When you've installed PicView, you can load it and build up a catalogue of your pictures. It can deal with any pictures for which you have the appropriate datatypes, so (if you've been installing the ones from Coverdisks) you should be able to index IFFs, JPEGs, TIFFs, GIFs, Targas and probably a load more!

PicView will create a greyscale thumbnail of each picture for the index and if you want to view the picture in full, all you have to do is double-click on the miniature.

There's also the ability to change screenmodes so that you can use the most suitable one for the pictures. In addition, should you want to use a different viewer to the built-in one, you can select your own.

This is one of the more innovative releases that we've seen recently and should prove popular. The author has designated PicView Giftware, so do send him a little something for writing such a cool program.

Electrics

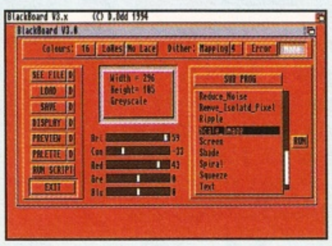
Over the past few years I've often been asked for a circuit designer and tester, but have never found one that would suit. So when we received this submission directly from the author in Vancouver, we were delighted.

Electrics includes a computer-aided design of digital circuits and also a simulator for you to test your creations before going out and blowing the National Grid. (A quick hello here to a friend of mine who rather spectacularly took out one of

Licenceware: Blackboard 3

We have yet another complete package for you this month – again trawled from the depths of F1 Licenceware. This is the full version of an image processing program that has received rave reviews in several magazines, including this one.

Blackboard installs to two floppy disks and it's recommended that you have at least two drives or a hard drive. Once Blackboard has de-archived, you need to click on the Init icon each time before launching the program (do this every time). You may need to assign the volume BBoard to the disk or directory you are using.

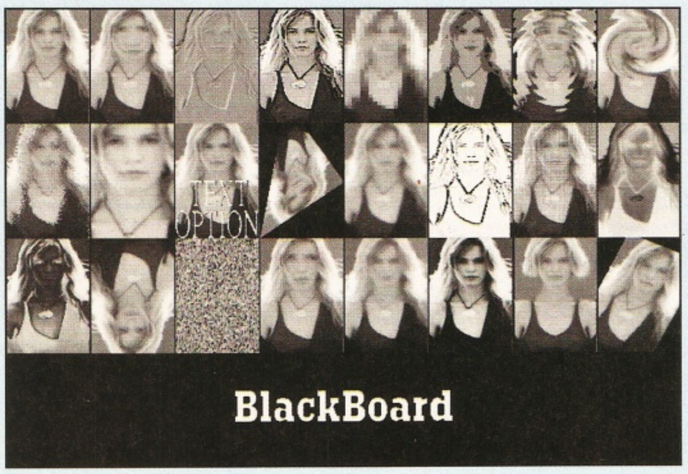


When the program loads, you'll find that the interface is quite easy to use. You can load a picture and then choose to adjust the palette, display the picture or add one of the many effects.

The effects are diverse and, as you can see from the pictures, they can make quite a difference to your artwork. To use them, choose the effect and click on Run. More details can be found in the program's documents.

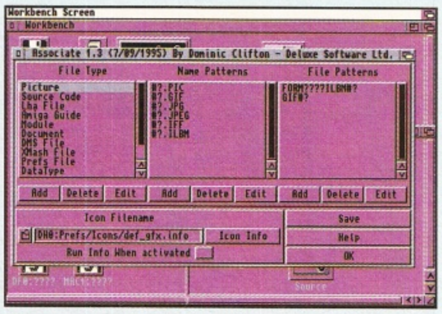
Blackboard only loads and saves the standard IFF images, but it can display them in a manner suitable to your chipset.

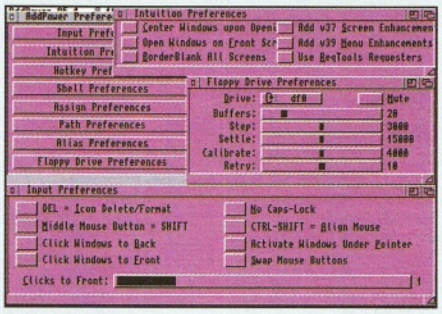
Should you want to adjust the preferences, which govern where the program looks for the effects modules, you can do this from the Preferences program. The HD Install program does not move any of the files, but sets up the preferences for the hard disk. Blackboard is set up initially to run from floppy, so you need to change the settings if you use a hard drive.

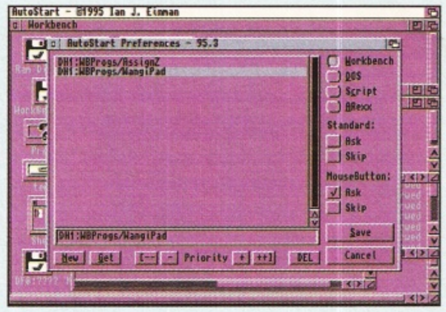


Blackboard has recently been upgraded to version 4, so if you like it, you might want to consider getting the new version, which is reviewed in the Licenceware section of this month's PD, starting on page 70. It's available for £8.99 from F1, ☎ 01392 493580.

UtilityZone







Associate 1.3

There isn't a simple way to add icons to files on Workbench. Associate solves this and much more. Install the version for your machine and you'll see what I mean. If you drop a file without an icon on to the AppIcon, it searches for the filetype and adds an appropriate icon with default tools. So, drop a doc on to it and you get a doc icon with the correct viewer already in the default tool line. What's more, if you drop a file with an icon already, it asks you if you'd like to replace the icon, but keep the tool types, making it easy to tidy up your icons. Excellent. Thanks to the author, Dominic Clifton, for incorporating our ideas into this version.

AddPower

Commodities can enhance your workbench in a variety of ways. AddPower does in one program what might take 10 different programs. There's the usual set of mouse utilities, like Sunmouse, but those are not what makes this program stand out. Nor is it the border blanking, the addition of hotkeys, the auto-centring of windows, the adjustment of floppy drive buffers or the ability to stop drives clicking.

I really like it because in addition to all the other features, you can also use AddPower to sort out your system's assigns and search paths.

To run AddPower you need to install the small library that is included in the package.

Autostart

This is yet another WBStartUp enhancer. Autostart is rather impressive because it offers features that I haven't seen anywhere else.

You set it up by just dropping your programs on to the Prefs interface, as you do with normal program launchers, like ToolsDaemon or Wangipad. You can then decide whether you want it started automatically or whether you want to be asked first. You can also set it so that it will ask you if you want to launch it if it detects that you've held the mouse button down during boot-up.

From the same author as AddPower, it uses the same library, also in this directory. Ace.

Marconi's building's electrics with his creation a few years ago. You could have done with this, eh?) There is also a viewer module so you can watch the circuit as it is tested.

Electrics is fully documented. It requires the reqtools.library to be installed. This is included in the directory in case you don't already have it – copy it to your libs: directory.

CreativeZone

Final Wrapper and Final Macros

It won't have escaped your notice that this month's Supertest is a round-up of all the new word processing programs. It just so happens that we've been in contact with the author of these extras for Final Writer. There are a set of macros and ARexx scripts that allow you to make some rather nifty text effects.

Larry Hickmott, who wrote the Supertest (starting on page 26), says of this package: "Quite simply, anyone with Final Writer should get their hands on this program." And no, he didn't know that we had got it for you when he said that. Obviously, you do need Final Writer to use this package, but you can take a look at the examples without it if you are interested. Just click on the Example button in the documentation.

There is an AmigaGuide to accompany both sets, which explains how to use them. There is a set of libraries that needs to be installed to use the program and these are included in both the directories (it's in both for distribution reasons).

As the docs explain, this software should be registered and the details are in the docs. For more information on Final Wrapper, check out the Supertest starting on page 26.

Mandelbrot

So impressed were we with the power of this fractal generator for its size that we had to let you have a play. The program draws the famous fractal image. You can zoom in on whichever section interests you and it re-generates the fractal. It's very fast, amazing to watch and proof that fractals are still as fascinating as ever.

There are two versions for different screenmodes: low-res and hi-res. The program requires a 68020 or higher. If you want to save a picture, you could try using a program like Quickgrab to grab the screen because there is no save as IFF option within Mandelbrot.

TechnicalZone

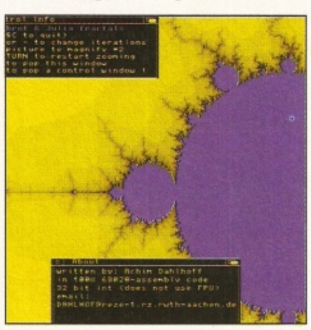
This month's Technical Zone includes lots of useful Shell programs as well as a few configurations for Directory Opus that people have been asking for.

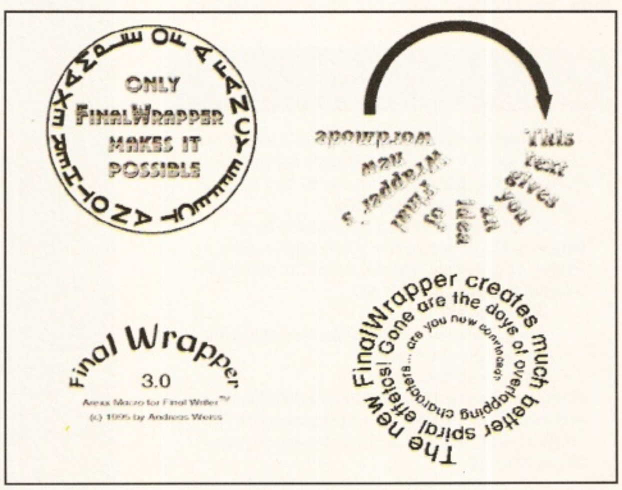
- **Help** is a nifty little program that allows you ask for help on specific topics replies. It also lets you create your own help files for use with the program. So you can create your own database for others to use. To get you started, the author has included a database helpfile for AmigaDOS.
- **CLI Calc** is from the author of Help and gives you a powerful calculator for use in the CLI. The docs give you an idea of how to use the more complex functions, but it's very similar to normal computer calculators, using +,-,* and / and ().
- **Yawfc** is an oddly-named command that allows you to add a new function to your Workbench, namely the easy quitting of windows from the keyboard. Something that should have been available as standard.
- **Shrub** allows you to view the directory tree of volumes and can even allow you to make changes to icons by clicking on them.
- **Showicon** is a simple command to allow you to display an icon from the CLI without having to go to Workbench.

▶ 12

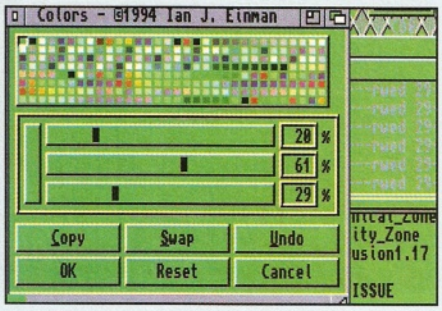
Right: Final Wrapper and Final Macros both bring new power to Final Writer.

Below: Mandelbrot is a fascinating fractal generator.





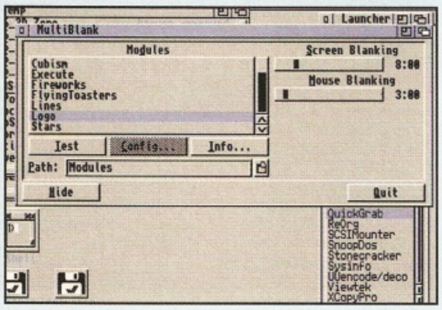
Utility**Zone** continued...



Colors

This is getting embarrassing. Here is yet another cool program from Ian Einman, the author of Autostart and AddPower. It uses his library again, which can be found in each of the directories, but you only need to install it once to use all three programs. Congratulations to Ian on such a great set of programs.

Colors is a replacement palette editor. The best thing about it is the way you can jump screens with the interface and change the palette of that screen. It also brings the palette requester more in-line with other preference programs, so you can choose and adjust colours with ease.

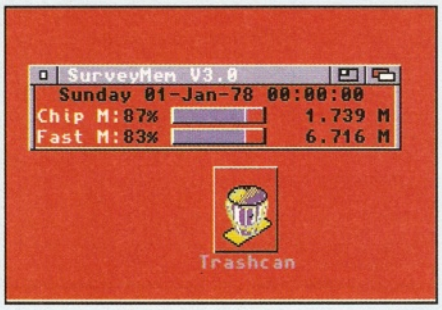


Multiblank

This is a nifty screen and mouse blanker that has various modules, allowing you to choose from a variety of blankers. You can set the blanker and the parameters from the tooltypes in the icon or you can pop up the interface with the hotkey ("Control alt b" by default). Of course, as well as changing the module, you can adjust the time it takes to kick in.

A little ironically, my favourite blanker is the spinning Commodore logo. Maybe we can see a flying Escom logo soon?

Thanks to Simon Clayton, the author, for submitting this and his other program TBClock which can be found on this month's Subs disk.



Surveymem

Surveymem sits a window on your screen giving you information about your memory usage. The program updates quickly and has an external Prefs program to allow you to tailor its readings to your needs.

TrashIt

TrashIt places an AppIcon on Workbench that allows you to trash files by just dropping them on to it. Much easier and quicker than using the Delete item from the menu. Neater too. You can also format disks by dropping their icons on to the new Trashcan icon.

- **Splice** is a command that allows you to split and join files for transferring over large files on floppies. It's very versatile and can split files with various options; such as to fit the file on to PC disks or to specified portion sizes.
- **Switch** allows you to make certain choices using the mouse button instead of inputting through the keyboard. It is like a powerful Ask command.
- **DOpus4LZX** contains two configuration files for Directory Opus 4 which allow you to use LZX from buttons and menus. This has been requested by loads of readers and you can find out more about the files in this month's Amiga Answers section starting on page 46.

Information**Zone**

This zone contains the AmigaGuide and ASCII PD Directory and User Group listing. These used to be printed within the magazine pages, but were constrained to minimal details and tiny print. We liberated them from that by including them as documents on the disk. They are updated every month to keep you up to date and contain masses more info than we ever could have included within the magazine.

Libraries

In addition, we've also included an AmigaGuide that explains the Amiga's library system. The libraries are one of the Amiga's strongest points, but one that many people can't get to grips with and the one that causes the most problems with programs failing to work because of missing libraries. This guide has a full index and is more than just an introduction, it also goes into technical details. For beginners, the introductory pieces should make things clearer and help you solve certain problems and for the more advanced, the technical side will make informative reading.

Programming**Zone**

Code Watcher

A useful program this month for programmers, Code Watcher, which will check that your program releases all the resources when you terminate it. Programmers may also find the Library guide in this month's Information Zone of interest.

That just about wraps it up. Let us know what you think of the disks and please keep your contributions for future AS Coverdisks flowing in. ■

Disk contributions

This month's disks were compiled using files from Aminet and from Walton's Mountain BBS, ☎ 0181 891 5730, and with the help of the authors of the programs.

If you would like to contribute to a future disk, whether it's a full application, utility, 40K demo, clip art, font, 3D object, or even a module, send it to:

David Taylor,
Amiga Shopper Coverdisk Contributions,
30 Monmouth Street,
Bath, Avon BA1 2BW.

Please only send the minimum distribution archive. Also, please do not powerpack (or similar) any files because it detracts from the archiving.

3D**Zone**



Well, what can I say? Thanks to everyone who has submitted objects for the Coverdisks. Please keep them coming. Any objects for any 3D package are considered. This month there's a Klingon Bird of Prey for Imagine from Dave Clarke (pictured), whose unusual F1 motor racing guide can also be found on this month's Subs disk! There are two object-based tutorials for Imagine, submitted by Jonathan McBrien who won the Answers competition in AS54. There's also a detailed sword object for LightWave users.

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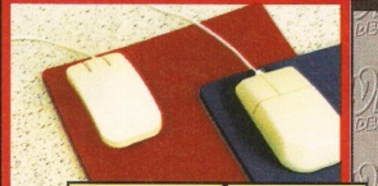


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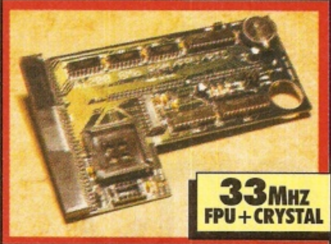
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News

This month in Amiga Shopper's news pages: a report from Live '95!; Escom's Usenet conference; Digita bring out new versions of bundle software; New Stylus printer and Canon speakers.

Living up to expectations

Live 95! saw the Amiga's return to Britain after a damaging absence. The only Amigas at the show were on display at the Future Publishing stand – we had the new packaging on display and were also demoing the Amiga Magic software bundle.

It was interesting to see that those people showing an interest in the Amiga were more intrigued by the serious applications like Wordworth, Personal Paint and Photogenics (included in the bundle), than the games, whilst the Pentium PCs on the other side of our stand were being used by visitors purely for the games.

Many Amiga Shopper readers were just pleased to see the return of their computer, although none were comfortable with its pricing – even those who were going straight out to buy one. Most people recognised the worth of the strong software bundle and accepted that it was more than the usual "free" software, but some were annoyed that they couldn't buy a bare machine, because they'd already got an Amiga and had collected all the software that they wanted.

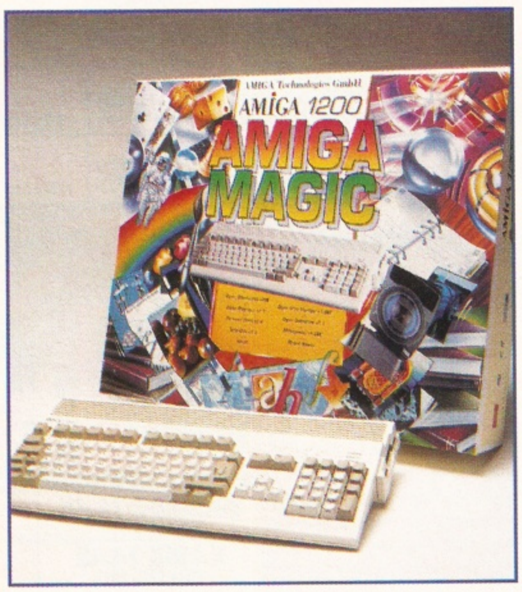


Above and below: The first new Amigas and the Amiga Magic bundle were on show at the Future Publishing stand at Live '95! The show attracted 190,000 visitors in six days.

While people were grudgingly prepared to fork out for an A1200, mostly one with a hard drive, nobody seemed prepared to accept that an A4000/040 was worth the £2,200 asking price. The clear message to Amiga Technologies was that A1200 owners who have been waiting to upgrade are now deciding to buy an accelerator card and stick with their A1200.

On a more positive note, the interest that the Amiga attracted was surprising – even to us. The massive stock of leaflets with details and technical specifications of the Amigas disappeared faster than anything we'd ever seen before. The positive attitude of visitors showed that support for the Amiga was unwavering and that the market still exists – if Amiga Technologies manage to address it correctly. People want the technology, they are prepared to buy it, if only they get the chance.

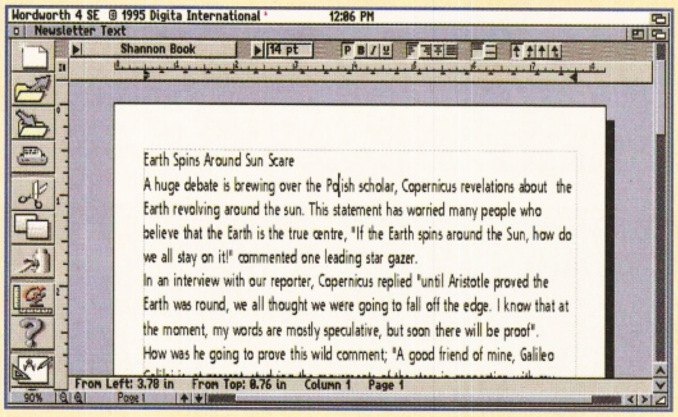




Life after the bundle!

Digita have not been resting on their laurels since the inclusion of much of their software in the new Amiga Magic bundle. They have a wealth of new software planned for imminent release.

There is to be an update to the rather cool Organiser, which aside from the new Supplements, will include the ability to link events, tasks and addresses to each other and you will also be able to scroll through diary events – something that was sadly missing from an otherwise superb program in the first version.



Also getting the update treatment are Datastore 2, which will have more features and improved speed; and Money Matters 4, the finance manager, will now include a currency convertor and a loan predictor.

Of course, the program that everyone's waiting for is Wordworth 4, the big brother of the Wordworth 4SE program that is included in the bundle. Well, you might never see it! There are rumours that Wordworth 4 will not be released, but instead will be released as Wordworth 5, to prevent confusion between it and the bundle version, which only contains a 'taster' of the new features. You can read a full review of Wordworth 4SE in this month's Supertest, starting on page 26 and Digita can be contacted on ☎ 01395 270273.

The rest of Live 95! was mainly dominated by two players: Microsoft – out to hype Windows '95 even further – and Sony – whipping up a frenzy with their new PlayStation. The huge numbers of visitors couldn't escape this and hardly anyone passing the door managed to leave without being given a Windows '95 carrier bag, so there'll be plenty of unwitting visitors carrying advertising around London for weeks to come.

Being a consumer electronics show, the level of stands varied enormously. There was the usual crap (no names mentioned!), with some gems being quietly touted if you had the inclination to look.

I'll mention just one, a voice recognition system that actually worked. As yet it was only available for the PC, but if we see new Amigas taking back ground in the serious sector, then perhaps we'll see a better presence at future shows with more stands supporting the platform.



The Future Publishing stand at Live '95: On one side people were playing games on Pentium PCs, while on the other they were interested in the more serious applications on the new Amigas.

Escom holds Usenet conference

Gilles Bourdin, the man who should know the most about the Amiga's future, attended a conference on the Internet where he answered questions from Amiga users. Here's what he had to say:

"In the United States, we are looking for a partner more than for a distributor. We have some negotiations going on at the moment that seem to be very promising. Currently, we have signed a non-exclusive agreement with a distributor called SMG.

"The CD32 should not be re-introduced this year. We want to do something new next year on the CD32 base. For the MPEG card for the actual CD32, I think that we aren't going to produce it anymore. But we're looking at the market and if it is worth it, we have no problem if a third party company wants to produce it under licence.

"We are working on an Internet package. I think this will be a very successful bundle for the A1200 and for the A4000T. For the A1200, we want something that can run with disks and the standard 2Mb of RAM. And the package has to be very easy to use, sort of plug and play regarding online services. We actually have a lot of plans, but these I can't talk about.

"The OS has to be improved in many points. There has been some work done on this by the AOS replacement project team."

He went on to discuss the problems of communication that have been evident over the past few months and explained that they were trying to develop a database of press contacts around the world that covered more than just the Amiga press.

Bourdin denied that the information being given out was less forthcoming than during the liquidation of Commodore and said that their PR department had only just been built up and was busy with shows.

As AS was going to press, we heard rumours that Amigas wouldn't be stocked in Escom shops after all. Amiga Technologies confirmed this. They also said that distributors SDL and Leisuresoft would receive A1200, A1200HD and M1438S stocks in the first week of October and that the A4000T will be available in late October.

Meet our sisters...

AMIGA POWER

Who killed Kennedy then? No really, just who did it? Was Oswald acting alone? Was he trained by the Russians? Did Jack Ruby get paid by the Mafia or the Cubans for silencing him? And who was the so-called Black Dog Man seen crouching behind a wall in one frame of the Zapruder film?

Not the sort of questions you'd normally see posed in your average, ho-hum computer games magazine, but there again, we're not your average mag and, in light of there being just a few releases this month, we thought we'd inform, educate AND entertain you. But of course, the tips, news and reviews are all in there too. Obviously.

AMIGA POWER 55 – A whole word of intrigue, conspiracies, and nasty scalp wounds. Plus a few games too. On Sale Thursday, 19th October.

Cam Winstanley
Editor

AMIGA FORMAT

December Amiga Format gives you the low-down on Amiga Technologies: Who's who? What do they do? And how?

We also have the exclusive review of Team 17's Alien Breed 3D. This game is capable of being compared with, and standing its ground against, game classics such as Doom on the PC and Marathon on the Mac. Technically accomplished and encompassingly entertaining, Breed 3D is a showcase for the Amiga's potential.

And if you ever had aspirations to become a publishing mogul, then read our expert advice on setting up a fanzine – you have to start somewhere!

December Amiga Format. On sale Thursday, 26th October.

Nick Veitch
Editor

Titbits

Movin' on up

Fori Owurowa, the author of the spline-based 3D object editor FreeForm that was on last month's Coverdisk, is now employed by Newtek and will be working on future versions of LightWave. Although he couldn't give us any details, he did say he had "some stuff that's going to really shake things up." Can't wait! You might be surprised to learn that Fori attended the same school as Amiga Shopper's own 3D expert, Mojo, whose tutorial can be found on page 54.

Silica bundles more!

Silica are planning not only to stock and push the new Amiga Magic bundle, but to make it even more attractive by throwing in an additional bundle of software free. The additional software will be the "award-winning" Chaos pack, comprising of the following games: The Chaos Engine, Syndicate, Pinball Fantasies and Nick Faldo Championship Golf. OK, so they are just more games, but when you consider which games are in the Magic pack, this does bolster the one weak area. With Sony PlayStations finally in the UK and other platforms performing well, the Amiga games market could be in for a further battering, so this additional support should show that the Amiga is still a multi-purpose machine, capable of very competent games. Silica are available on ☎ 0181 309 1111.

Happy Birthday Soft-Logik

Soft-Logik, the creators of PageStream, are celebrating their 10th birthday. To tie in, they have reduced the price of PageStream 3 from $135 to $95 and added a $60 option for those on a budget. The $60 version does not include a printed manual or the Pantone(R) colour libraries, but it does include StartUp instructions and comprehensive on-line help, thanks to AmigaGuide. There will be a free upgrade available from version 3 to 3.1 later this year.

In addition, PageStream 2.2 has been re-released at the much reduced price of $39. For more information contact Soft-Logik ☎ 001 314 256 9595

Stylus sequel



After the success of the original Stylus Colour printer, Epson have announced its descendent, imaginatively titled the Epson Stylus Colour II. The original printer was dubbed "the King of the Inkjets" by Larry Hickmott in the AS Printer Supertest. He awarded it a Star buy and 92 per cent. Epson promise that the new printer will be even better with "photo-real colour quality... made possible by the printer's high 720dpi resolution."

Epson claim a major new feature is their "auto-colour", which is a totally new function providing driver settings and colour adjustment. Object analysis is implemented, meaning that driver settings are optimised for each object on the page.

There will be two versions of the printers, the Stylus Colour II and the IIs. The first is aimed at a higher end-user with all the above features – but with an RRP of £385, it shouldn't be beyond most users. The IIs is designed for office and home use and costs £50 less.

The major difference between the two printers is speed with the II achieving four pages per minute black text, while the IIs only manages 2.5 ppm. ☎ 01442 61144.

Shopper nets even more

Amiga Shopper is still expanding its presence on the Internet. On top of the superb on-line magazine with its links to other top sites and the best new software for download (see page 57), we were asked to contribute our User Group listing to the Amiga Home page (http://www.omnipresence.com/Amiga/MainPage.html), who were so impressed with its comprehensive content that they wanted to include in their listings. We've happily agreed and will be working in conjunction with them to keep both our listings as current as possible. The Amiga Shopper User Group listing can be found in the Information Zone on the Coverdisks every month along with the PD Houses Directory. See the Coverdisk pages (on pages 6-12) for more details.

Canon sounds



Canon have launched a set of multimedia speakers designed specifically for use with computers. The SV-15Active is a pair of compact, hi-fi quality speakers which have WDS (Wide Dispersion Sound) to provide a larger listening area. They are magnetically shielded so they can be placed near to monitors without interfering. Although the product comes with a multimedia CD-ROM for PCs, the price is a phenomenal £179 ex. VAT! Call Canon on ☎ 0181 773 6000.

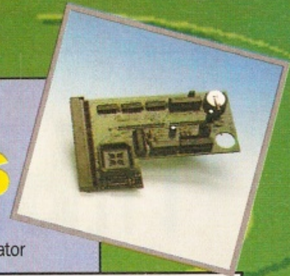
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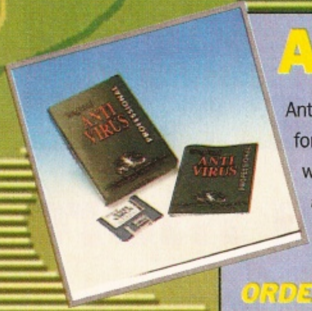
The Dataflyer is a 16 bit SCSI II controller card that converts the signals on the internal IDE interface to also run SCSI devices at the same time as the IDE hard drive.



The Dataflyer SCSI+ will operate up to 5 SCSI devices such as CD-ROMS, hard drives, SyQuest removable drives, tape back up drives etc.
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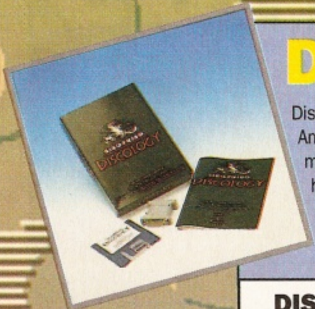
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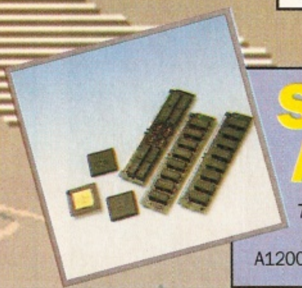
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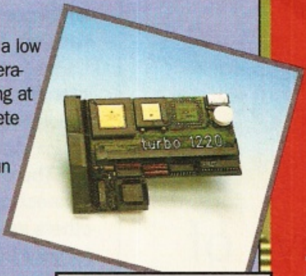
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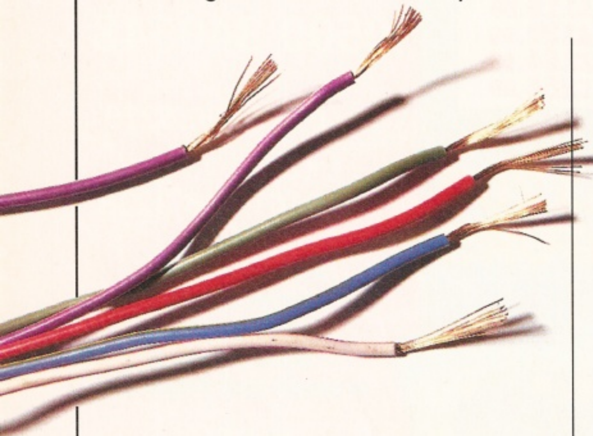
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From the M62 Junction 17 head towards Bury. We are 50 yards on the right hand side after the third set of lights. The door to our premises is next to the florists opposite the Masons Pub.

All prices include VAT. Postage and packing will be charged at £3.50 per order (UK), £7.50 Europe and £12.50 rest of the world.

Talk to me!

Connecting one computer to another can be a difficult, but essential, task. When one of the machines is an Amiga there are more problems than usual. **John Kennedy** *examines the joys of Amiga networking.*



Sooner rather than later you will find that you need to connect your computer to someone else's. You might want to copy a 10Mb file, or you might want to do something more trivial, such as playing a multi-user game, but in either case you are faced with problems. What hardware do I use? What software? What if one of the computers isn't an Amiga?

In these days of superhypeways and internets, communications are becoming more important – and because you happen to own an Amiga there's no reason to get left behind.

There are many reasons for wanting to connect computers together. Some are trivial, others are more useful and if you use computers for your business, some are essential.

Networking covers so many topics that it is hard to know where to start, but some of the benefits include:

- The ability to share files between machines quickly and easily
- The chance for people using machines which are separated by distance to communicate by E-mail
- The ability for more than one system to share resources such as printers, hard drives and back-up systems
- The ability to use a remote machine as though it were in the same room

You may not want any of these features right now, but you can be certain that it won't be long until you need to connect your Amiga to the outside world.

> "In these days of **superhypeways** and internets communications are more and more important."

Sneakernet

The simplest networking option is called Sneakernet for reasons which will become obvious. Imagine you have two Amigas in the same room and you want to get a small file from system 1 to another other. By far the quickest option is to copy the file to a floppy disk, walk to the other machine, and load it. That's where the "sneaker" part comes in: your feet are the actual transport mechanism.

Sneakernet works for other platforms as well. All Workbench 2 and better Amigas come with a program called CrossDOS. This is a new filesystem device driver (it makes a new disk icon on your Workbench) called "pc0:". You should be able to find the pc0: device in the Storage drawer of one of the Workbench disks, and when you double-click it your internal floppy disk drive can be used to read and write to PC format floppy disks.

If you have an A1200 (or A500, A600 or A2000) then you will have a double-density disk drive fitted as standard. These drives will hold about 720K. If you have an A4000 (or certain models of A3000) there will be a high density drive fitted, which is capable of storing twice this amount of data. High density drives are fitted to all PCs and Apple Macs, and are backwardly compatible (in other words, they can also read double-density disks.)

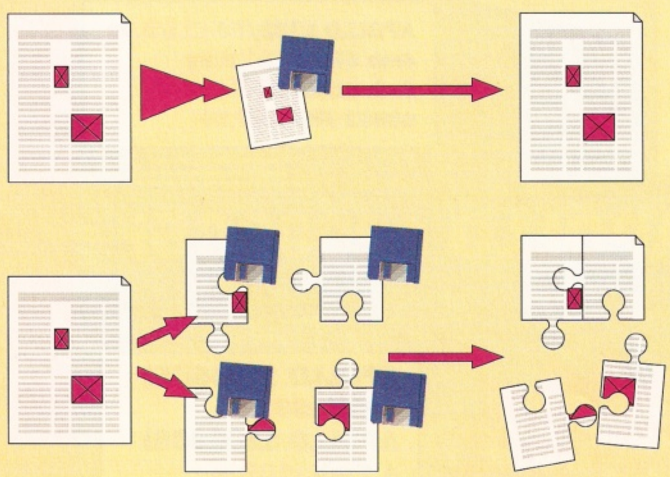
Any data you save to a disk formatted using the pc0:device can be read on a real, live PC. All you need to do is pop the disk in the PC drive and away you go. Remember that you cannot swap programs in this way, only data: PCs and Amigas are fundamentally different in this respect. To run PC programs on the Amiga you would need an emulator. Running Amiga programs on a PC is not possible.

All new Apple Mac computers come with System 7.5 – their version of Workbench or Windows – which can read PC-formatted disks as standard (although 7.5 may have problems with double-density disks, in which case 7.1 should be used). This means that data on

Split and Join........

Archive a file, or use a competent file type (like JPEG) for graphics, to fit it on to a disk, then un-archive or convert it back on the destination system.

Split the file into parts that fit on to floppy disks with a splicing program (Splice is in this month's Technical Zone on the Coverdisks), and then re-join the files from the disks on the destination system.



floppies can be easily shared between all three platforms and beyond, because just about every computer will have some means of reading PC format disks.

There are a few problems of course. First of all, file names must be kept to the prehistoric MSDOS "8.3" naming convention. More problems are likely if sharing data from word processors or graphics programs: there are dozens of different "standards" for sharing files. Many Amiga graphics programs can cope with the GIF or JPEG standard and so these will probably suffice. For text files, it pays to forget the formatting and style information and stick to plain ASCII or MSDOS text.

Some programs can both import and export text in a suitable form (RTF for example) in which case you might be lucky.

Make room, make room!

If the data you need to share is larger than can be fitted on to floppy disk, you start to face the limitations of Sneakernet. File compression by means of archiving is one way around this particular problem. Graphics should be saved in JPEG rather than TIFF or GIF format, and other data should be compressed with Zoo, Arc or Lha: any system which you can find a set of matching – and compatible archivers – on both platforms will do. I have had success with Zip between the Amiga and PC, and Lha between the Amiga and Apple Mac.

If you can't find a pair of archiving programs, look out for implementations of "Split" and "Join", which can separate unwieldy files into smaller pieces and them reassemble them. If you get totally stuck, the UUENCODE system will definitely work. UUENCODE was designed for sending binary files via the Internet in ASCII form. UUENCODE a file and then use a text editor to split it into chunks small enough to fit on a floppy. Combine them into one file again at the other end and use UUDECODE to re-create the original file. (see the Split and Join diagram on the previous page.)

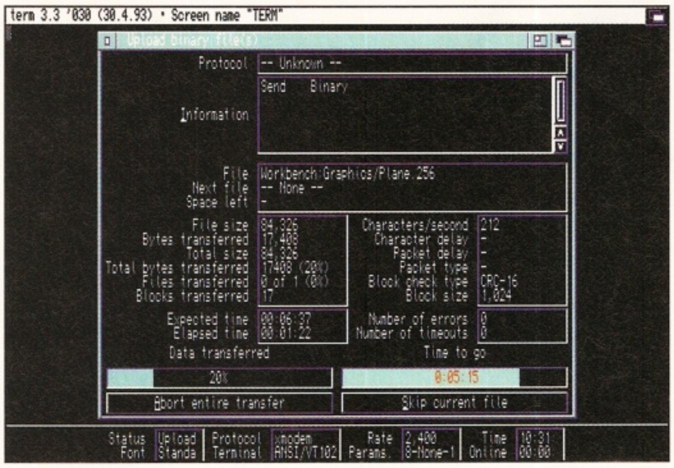
When you start dealing with seriously large amounts of data of course, floppies are just not good enough. They are far too slow, too fiddly and of course not terribly reliable. It's time to try a new media, such as removable hard disks.

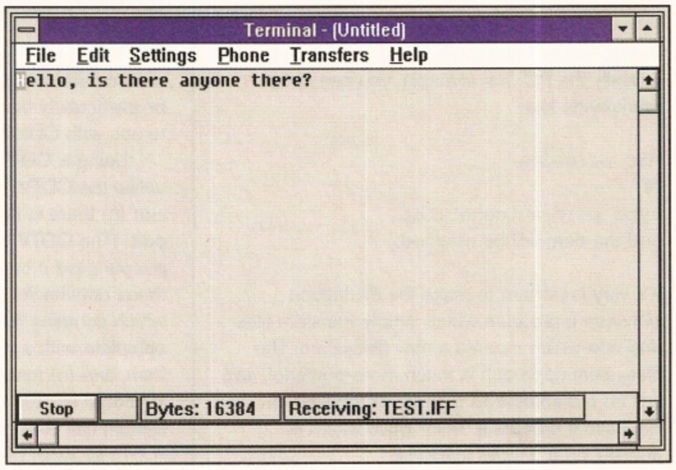
If you have a system such as a SyQuest or Zip drive connected to your Amiga, the CrossDOS filesystem can be used to format the cartridge. This means that not only are the disks readable by the Amiga but also by the PC too. Instead of spending a day or two walking back and forward with 100 floppies, you can pass over one small cartridge. It's much faster, much more convenient, and of course much more expensive.

Jargon busting

Ethernet: A very high speed networking standard, with theoretical speeds of up to 10Mbit/second. Several wiring standards are available, including 10base2 (coax cable) and 10BaseT (twisted pair).
GG2: The GoldenGate 2 card, which allows PC cards to be used in Amigas with Zorro slots.
SANA-II: The standard for hardware driver software. If a program supports SANA-II it will work with any interface, no matter what hardware is used.
TCP/IP: Transmission Control Protocol/Internet Protocol: A standard way of packaging up data for transmission and reception.
UNIX: Ancient, but powerful, operating system. It is available for free in the form of Linux.
XWindows: A graphical user interface for UNIX systems.

Right and below: Here is an Amiga, connected via a null modem cable to a PC. The PC is running Windows' very own Terminal program (yuck) which means that XModem is the best transfer method available. It's not a stunningly fast way of swapping files, but at least you can have a cup of coffee instead of carrying floppies to and fro.





Get wired

To transfer a lot of data cheaply, it's time to think about a physical connection between the machines. Starting at the simplest level is always a good idea and so the Serial Port is your best starting point. Thanks to the miracle which is RS232, any combination of Amiga, PC, Mac, Atari or Archimedes will happily be able to talk to any other. All you need is a null modem cable and a suitable terminal emulation program.

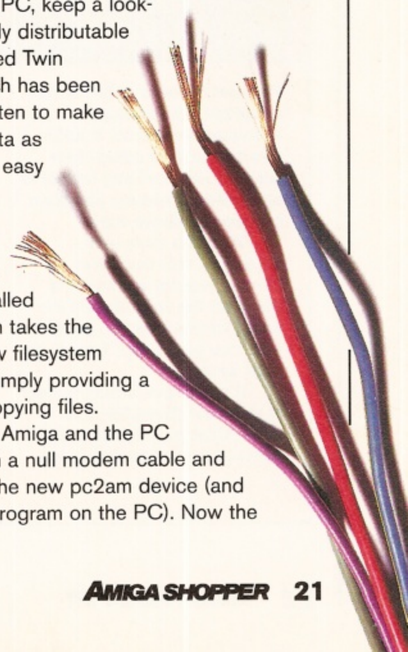
Plug the null modem cable into the serial port of both machines, make sure both are operating the port at the same speed and parity (start with 9600, 8-bits, no parity and hand-shaking determined by your cable). You should be able to type text on one terminal program and see it appear on the remote system, and vice versa.

All good terminal emulation programs will have an option to send and receive files, preferable with the Zmodem standard (or Ymodem or Xmodem or Kermit if you really must). With one computer transmitting and one receiving, you can send several megabytes in an hour or so. The maximum speed you can attain depends on the quality and length of the serial cable, and the speed of the computers involved.

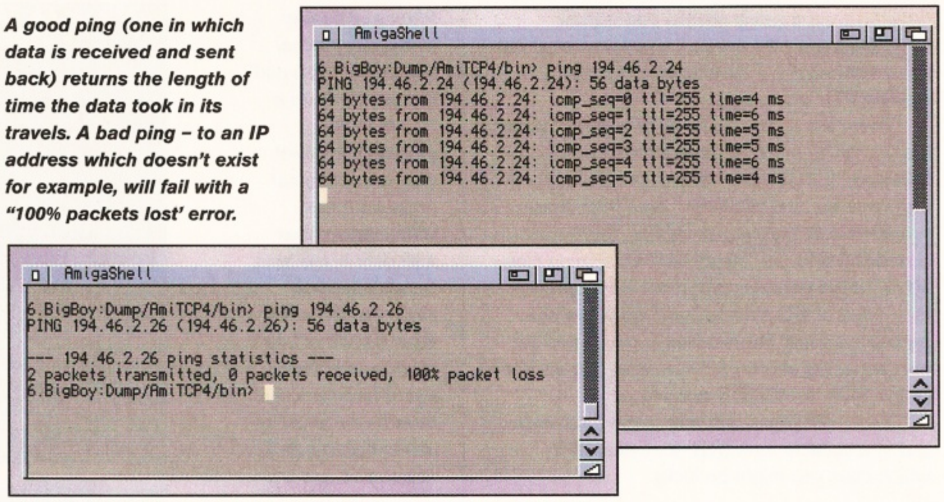
It's not startlingly fast, but it works. As you might have guessed you can also do without the null modem cable and use a real modem instead. By connecting a modem to both machines you can transmit files using the public telephone network, and so the computers no longer have to be in the same room.

Using terminal software can be a bit fiddly, and so if you are swapping files between an Amiga and a PC, keep a look-out for a freely distributable program called Twin Express which has been specially written to make swapping data as quick and as easy as possible.

Perhaps more interesting is a program called pc2am which takes the form of a new filesystem rather than simply providing a method of copying files. Connect the Amiga and the PC together with a null modem cable and then mount the new pc2am device (and run a small program on the PC). Now the







A good ping (one in which data is received and sent back) returns the length of time the data took in its travels. A bad ping – to an IP address which doesn't exist for example, will fail with a "100% packets lost' error.

Amiga has an extra drive called pc: which is actually the PC. For example, you can enter commands like:

```
dir pc:c/dos
```
or
```
type pc:c/autoexec.bat
```
and the data will be returned.

It's very important to make the distinction between a program which simply transfers files and one which mounts a new filesystem. The filesystem approach is much more powerful, and will be transparent to the rest of the system because it creates a "fake" drive which is actually on a remote machine.

This is also how Amiga-specific systems like Parnet and Sernet work. Both programs allow two Amigas to be networked together, and Parnet uses the parallel ports, whilst Sernet uses the serial ports. The parallel port version is much, much faster because it has so many extra signal lines to play with. It does require a special lead to be built, and so you may want to start with Sernet to see what the system is like.

With Parnet (or Sernet) running on the two machines, the disk drives from one machine can be used from the other. In fact, any device can be accessed: floppy drive, hard drive, CD-ROM drive or even RAM disk. This makes Parnet ideal to make use of a redundant Amiga you may have left over from upgrading. By connecting a CDTV or a CD32 to an A1200 for example, you can immediately gain a CD-ROM drive. It won't be particularly fast, but it will work well enough to use with CDs full of Public Domain software.

Using a CD32 is slightly tricky, because unlike the CDTV, (a) there is no floppy disk drive and (b) there is no standard serial or parallel port. (The CDTV was a lot better than most people gave it credit for). The way around these drawbacks is to (a) use a CD-ROM which contains the networking software on it, complete with a working Workbench to boot from, and (b) make clever use of the expansion keyboard socket. For more details on this system call Brian Fowler Computers Ltd on ☎ 01392 499755.

Likewise, your A1200 can be connected to an A500 or A2000 to make use of a hard drive fitted to these machines. But remember that this is a filesystem approach, and nothing more complicated. Although you can access the RAM: disk on both machines, this does not mean you can get an instant memory upgrade. Using the RAM: disk on the remote system is only useful for temporary storage – the memory isn't added to the amount available for ordinary programs.

There's a whole host of extra application programs available for Parnet or Sernet. For example, you can set up little chat windows and even create a remote mouse and keyboard system so you can use the remote Amiga without being anywhere near it.

Unfortunately, there is a problem with using these parallel and serial-based networking systems in that they are still quite slow (slower than reading data from a floppy disk drive, for example, never mind a hard drive) and they are platform-specific.

Amiga Envoy

Talk to anyone who has used a PC network and you'll discover a whole new world of resource sharing, electronic mail and multi-player Doom games. The Amiga may have the best in Windows environments, but the PC has streaked ahead in terms of networking. The same is true with the Apple Mac: both systems can be networked together into quite large groups with only minor hardware additions. Software support is already present in the Operating System software.

That's not to say that Amiga networking software doesn't exist, but rather that it has never gained the reputation it deserved.

Perhaps the best kept secret is Envoy, the "official" Commodore networking system now developed and supported by ex-Commodore Dale Larson of Intangible Assets Manufacturing.

Envoy works using the SANA-II standard (more of this later) which basically means that it doesn't really care about how the machines are physically connected as long as there is a SANA-II driver available. If someone managed to make a SANA-II driver for a system connected using two pieces of damp string, Envoy would happily use that.

In return, Envoy provides an excellent networking environment. Rather than a simple Parnet-style connection where any machine can access any other, Envoy maintains a list of drives and devices which may be made available to the remote machines. It also allows up to 254 Amigas to be part of the network: rather more than the two which Parnet supports.

Printers can also be shared, which means you can start to organise something as advanced as a sophisticated office network.

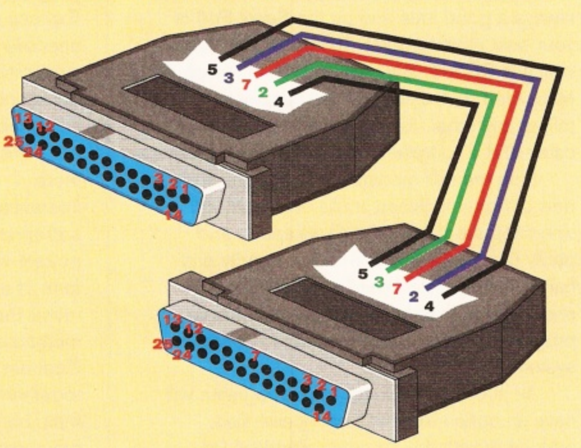
The simplest hardware which will support a SANA-II driver is the good old serial or parallel systems, as used with Parnet and Sernet. Take a look through the Public Domain libraries and you'll find several SANA-II-compliant drivers such as "plip.device". These drivers will probably require you to spend a few hours soldering up

Null modem cable and handshaking

The null modem cable is the simplest networking hardware available. It links two computers using their serial ports, and any terminal emulation software can then be used to share files.

To make your own cable you will need two 25-way female connectors. Pin 2 on the first should be wired to pin 3 on the second, and vice versa. Pin 7 must be kept common.

If hardware handshaking is required (the CTS/RTS style) then pins 4 and 5 will need to be connected too.



cables, and so it would probably save you time if you considered the Liana system instead. Like Envoy, Liana is a commercial product (it costs £64.95 from Blittersoft ☎ 01908 261466), but it comes complete with everything you need to network two Amigas: cable, instructions and a copy of Envoy all ready to install and go.

Once again, however, we are back to the disadvantages of parallel port: goodbye printer port and more than two systems, hello slow transfers. We need something a little more advanced – we need Ethernet.

Aminet and Ethernet

Ethernet is great. It's cheap, it's fast and it's reliable: three things that don't happen often. It's cheap on the PC anyway, where cards cost £50, and the stated maximum speed of 10Mb a second is very pleasant indeed compared with using a 9,600bps serial port. Ethernet is the standard form of networking on other platforms, and so the technology is well developed.

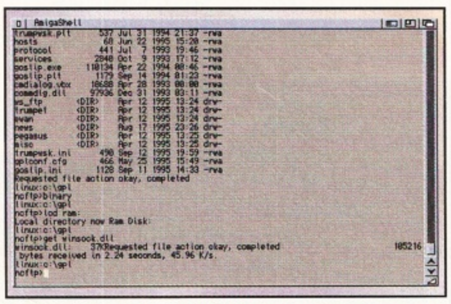
Unfortunately (and sadly, that words pops up a lot when it comes to networking and the Amiga), getting an Ethernet card for the best computer in the world is not a startlingly easy thing to do. Commodore themselves made Ethernet cards (the fabled A2065) and a related Arcnet card (the A2060) but they are as rare as glowing tributes to Medi Ali. The Commodore devices were Zorro II cards, which of course meant Big-Box Amigas only.

If you do have a Big-Box system there are currently two alternatives which you can buy without having to read the Classifieds and trust an old and dusty-looking piece of circuitry.

The first is the Ariadne card, again from Blittersoft. This is a brand new Zorro II card which comes with connections for a coax-cable style Ethernet cable and a TwisterPair connector, plus an extra parallel port. The extra parallel port is a nice bonus, because it means you can wire up a Liana system to a spare A500 or A1200 without losing the printer port.

As you would expect, the Ariadne card comes with a SANA-II compliant driver and a copy of the Envoy software. The bad news is that the card is quite expensive at £219.95, but alternatives are difficult to find.

The second solution which I have managed to get working is to use a PC networking card. How is this done? With the GoldenGate2 card, of course. This was first reviewed in AS50 and scored a 90 per cent rating, which probably wasn't high enough: this is a seriously good piece of kit. The GG2 allows the PC-compatible slots present in all Big Box Amigas to be used with PC standard cards. It means you can use PC I/O cards to gain extra serial and parallel ports: and also PC Ethernet cards. It's available in the UK from Eyetech (☎ 01642 713185) who will sell you a GG2 card, I/O card, modem card and Ethernet card all for £169.99.



With an FTP daemon (server) running on the PC, the Amiga can access the PC's hard drives and download files. It's a lot faster and a lot less hassle than using floppies.

Ethernet at work

A rival system to Envoy is ENLAN-DFS, which also works on the assumption that SANA-II hardware is present. A system called T-Net makes use of ENLAN to provide networking features for LightWave. As a result, "render farms" can easily be created as multiple machines work together to create scenes in record times.

Both are available from Interworks Professional Network Solutions based in California. Interworks also produce Zorro and PCMCIA Ethernet hardware and their own TCP/IP software. Contact them for more details.

E-mail: info@iworks.com
☎ 001 (909) 699-8120
Fax: ☎ 001 (909) 699-8279

> "Ethernet is great. It's **cheap**, it's fast and it's reliable."

The GG2 card comes with SANA-II software for either an NE1000 (8-bit) or NE2000 (16-bit) compatible Ethernet card. The NEx000 are the most popular cards, and you will find it easy to locate either a new or second-hand one.

If you don't have an Amiga with Zorro slots, the fun begins. Although PCMCIA and Parallel cards are available for the PC, no one in the UK seems to sell Amiga-compatible systems. Some do exist: I managed to track down a company selling cards for the A1200, and you should contact them directly for more information.

Assuming you get your Amigas equipped with SANA-II drivers, you'll be able to install Envoy and enjoy sharing drives and printers. An A2000 fitted with a fast SCSI card and large hard drive would make an excellent fileserver for a collection of A1200s: great for large-scale programming projects or an office.

However, here we reach another problem: using Envoy on Amigas connected via Ethernet is lovely – but Envoy won't run on an PC or a Mac. What are we going to do?

Fun with TCP/IP

The answer to cross-platform networking comes from a source which you may consider unlikely to start with – until you realise this was the very reason it was created: TCP/IP.

You may have heard of TCP/IP (and the Amiga implementation AmiTCP) with respect to the Internet. TCP/IP is the software protocol on which all Internet connections depend. Using TCP/IP, software can split data into packets, add special addresses to make sure they head off in the right direction and check that they reach their destination in one piece.

If you have a dial-up connection to the Internet, you may well be already using AmiTCP to provide a means of running AMosaic, FTP or Telnet tools. Somewhere you will have configured the TCP/IP system to use the serial port and a SLIP connection (or CSLIP or PPP) to communication with the host computer you are using as a gateway on to the Internet.

Making use of a SANA-II driver is even easier, and means that using AmiTCP with a Ethernet connection to another computer: for example, a PC or Mac with an Ethernet card and running their own copy of TCP/IP is relatively straightforward.

Configuring AmiTCP v4 to use the GG2 and Ethernet card installed in my A4000 was a matter of editing file "amitcp:db/interfaces" and making sure the following line was present:

```
gg_ne2000
DEV=DEVS:Networks/gg_ne2000.device
UNIT=0
```

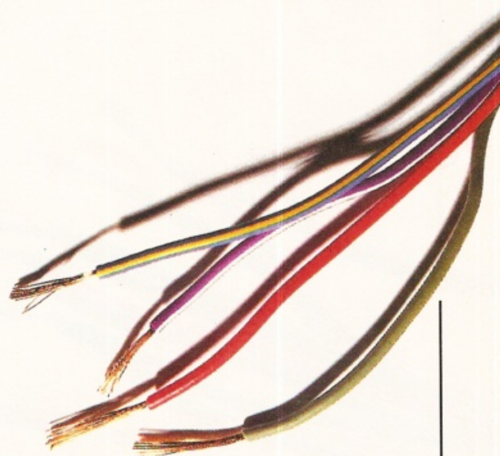
Any other hardware would be used by entering their SANA-II driver information in a similar way. That was the hard part: the only remaining part is to make up a plausible IP number (I use the IP I was given by the Internet Service Provider) and configure the remote machine.

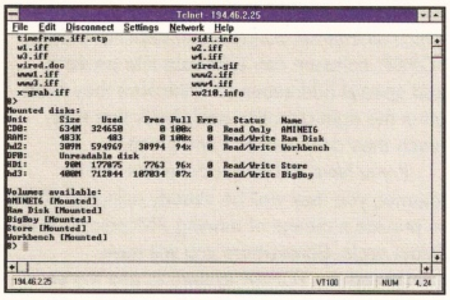
On a PC, the easiest way to get the ball rolling is to use the a TCP/IP stack, such as the freely distributable Trumpet Winsock. Trumpet Winsock normally expects to use the PC's serial port, but you can ask it nicely to use an installed Ethernet card. This is done by configuring a "packet driver" (one should have been supplied with the Ethernet card) and informing Winsock to use it instead of the serial port. It sounds complicated, but the hardest part is making sure that you have a suitable packet driver.

Windows '95 promises to make this kind of installation procedure into a "plug and play" experience (like the the Amiga and Autoconfig have provided for years), but I haven't the necessary memory or hard disk space to install Windows '95, so that experiment will have to wait until after payday.

On an Apple Mac you can use the MacTCP program (supplied with system 7.5 as standard)

▶ 24





Here's something you don't see very often: a sensible Shell on the PC. The PC is Telnetting to the Amiga where a server is dealing with it like any other Shell.

Networking programs

Name	**Location/Dir**
pc2am202.lha	**aminet/comm/misc**
TWINEXPRESS.lha	**aminet/misc/emu**
split.lha	**aminet/misc/emu**
uucode.lha	**aminet/util/arc**
Parnet.lha	**aminet/comm/misc**
sernet24.lha	**aminet/comm/net**
amiwin.lha	**aminet/graphics/X11**

to do the same thing. Use the Chooser to use Ethertalk rather than AppleTalk and connect everything up.

On both systems you will need to pick a different IP number for your Amiga and the other computers on the network. The numbers need to be unique, but because of the way TCP/IP works you can't pluck them out of thin air. As long as you are not planning on connecting the real Internet via a dial-up link (or some other way), it's safe to use a variation of almost IP you see. It's not very polite of course to pinch someone else's number, but unless you really are on the Net nothing bad will happen.

The best way to check that all is working is to use the Ping command. For example, look at the pics at the top of page 22 to see the Amiga using Ping to check that the PC is connected and operating. If the test data packets are received and returned you'll get a measure of the time it took them, otherwise you get an error.

With the various machines connected and communicating, you can now really start to play with your network. Perhaps the most important feature is the ability to quickly and easily copy files between machines. In order to do this you will need to use the FTP command, and you will also need a corresponding FTP daemon program (for more details on TCP/IP Daemons, see Darren Irvine's articles in AS53 and AS54). I use the FTP tool supplied with AmiTCP on the Amiga, and a daemon built into the FTP tool supplied with the Chameleon internet software suite on the PC. There are several other daemons to choose from for either the PC, Mac or Amiga – it's up to you which you want to be the host and which you want to be the client.

As you may have read in Darren's Amiga Shopper Comms features, you can also set up Telnet and even World Wide Web daemons. These can all be used on your own local network. For example, with an HTTP daemon you can use your Amiga running AMosaic to display HTML pages stored on a PC: your own private World Wide Web. You could also use an Amiga HTTP daemon and then run NetScape on the PC to read pages stored on the Amiga.

All these are very entertaining, and time consuming, but at least it does mean that now you can send files between the machines at speeds of 100K a second and higher.

However, it's still only scratching the surface of what the Amiga can do when combined with a powerful networking system like TCP/IP. You might not believe it, but with AmiTCP I have been able to use NetScape, Mosaic and even play Doom on my A4000. How could this be possible without resorting to emulations?

The Amiga meets Unix

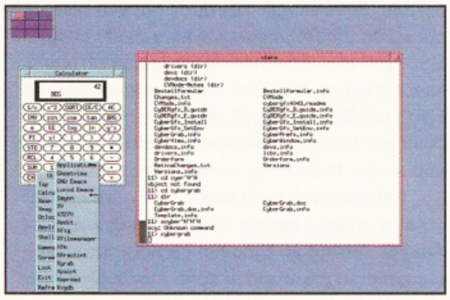
Imagine an Operating System rather like AmigaDOS but running on PC compatibles. It multitasks, it has a sensible filename convention and it's not MSDOS, Windows or OS/2. If you are thinking of the same one that I am, you are thinking of Linux – the free UNIX clone for 386 and better PCs. (Note: yes, Linux and the similar NetBSD system are available for the Amiga, but let's leave that for another day).

Linux has amassed quite a cult following, and many users find that despite all the fuss of Windows '95, it provides a much more useful environment. Ok, so if you want to use Microsoft Word or Excell or other software giants then Linux is not the system for you. On the other hand, if you want to know what it's like to use a properly multitasking Operating System with a full development system and more free software than you could ever imagine, you should check it out. Unlike Windows '95, Linux doesn't require a high-spec PC. Anything from a 386 with 4Mb of RAM an upwards will run Linux very well, so keep a look out in those second-hand columns.

UNIX, and therefore Linux, is heavily linked with TCP/IP. TCP/IP is integrated into the Operating System very tightly indeed, to the extent of almost becoming invisible.

Once you configure the Linux system to use an Ethernet card and connect the Amiga, it's like having an extra terminal. You can log into the Linux system from the PC, run programs, use text editors or whatever whilst someone uses the Amiga to do exactly the same thing. Telnet and FTP daemons are present all the time, and so simply using AmiTCP's Telnet will enable you to run a session on the Linux system.

There are many very powerful and useful programs available to run under Linux. Word



Xwindows is a Windowing system which runs on top of UNIX. It's so smart it can actually run on a different machine than the host – on an Amiga for example. All the X screenshots here were displayed on an Amiga and screen-grabbed in the usual way.

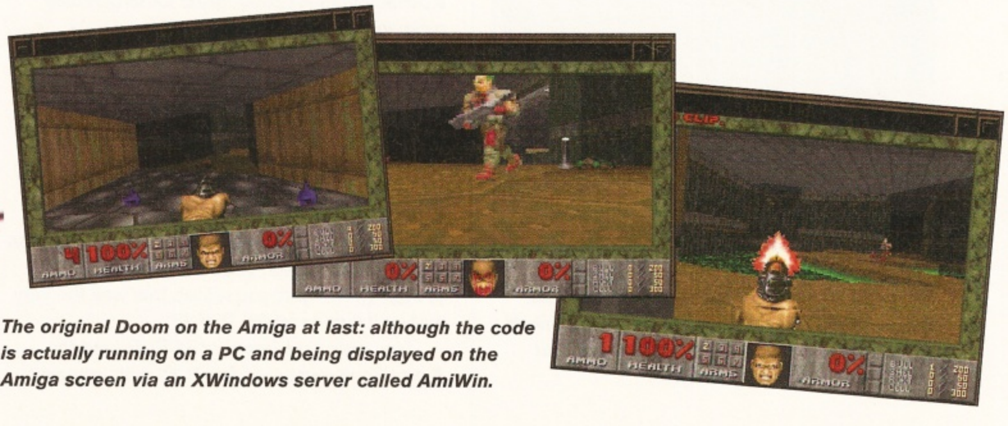
processors, spreadsheets, graphics programs: all are available for free, either on CD-ROM or from the Internet. Perhaps the most important application is XWindows.

Without XWindows, Linux is text-only, like an AmigaDOS Shell window. With XWindows installed and running (and of course, it's totally free) you get a very pretty Workbench-like display. It's very smart and considerably faster than Microsoft Windows in many respects. It also allows you to use programs like NetScape, Mosaic and even Doom.

What's amazing is that there are several XWindows systems for the Amiga. Primarily these exist for use with the Amiga native version of Linux, but the nature of open systems architecture and other big words means wonderful things are possible: but first of all you need to know how XWindows works.

XWindows is a client/server system. An application program (the client) which runs





The original Doom on the Amiga at last: although the code is actually running on a PC and being displayed on the Amiga screen via an XWindows server called AmiWin.

under XWindows doesn't know anything about the hardware it is running on. It doesn't know how to draw a line, or move a window. Instead it knows that it can ask the server program to actually draw a line or actually move the window. The server program knows about the hardware, the client knows how to edit text, paint pictures or whatever its purpose is.

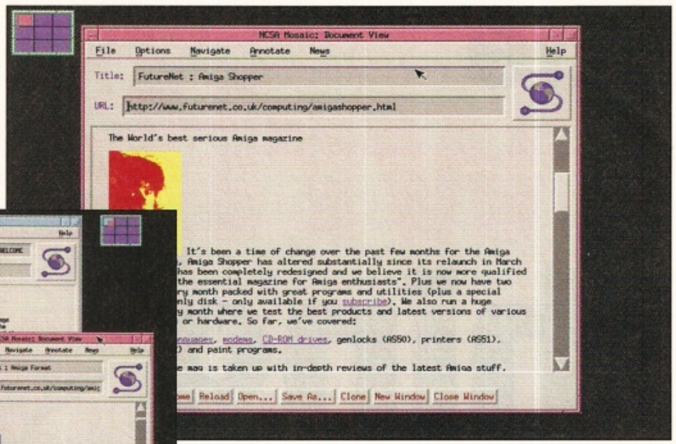
The X system is particularly smart in that the client and server don't need to be running on the same machine. X programs can run over a network.

Let's take a real example. Take an Amiga running AmiTCP, and connect it via Ethernet with a PC running Linux. Run the Amiga X Server program "AmiWin". Now, on the Linux system, instruct the X system that the display should not be on the default monitor but on the remote Amiga system. Next run the required program, for example, Doom for Linux.

The Doom program runs on the PC: it's an Intel 386 binary after all. However, all the graphics commands are passed along the Ethernet cable to the Amiga, which is running its own XServer. The result is that the game of Doom appears on the Amiga screen, where it is actually quite fast: certainly many times faster than if it was running on some form of software-based emulation system.

With the AmiWin program installed freely available in demo form from Aminet, you can run any Linux X application. Programs like

The World Wide Web browsing program Mosaic mightn't be available on the Amiga, but its screen display certainly is, thanks to AmiTCP and XWindows.





NetScape and Mosaic work perfectly and run very quickly indeed. There are plenty of games and other applications freely available. AmiWin work best on a graphics card (a Picasso or other CyberGFX-compatible system is ideal), but it will also run using standard Amiga graphics.

Conclusion

In this rather lengthy look at networking, we have considered many ways of linking an Amiga to another Amiga, or to a PC or Apple Mac. We've also seen how a floppy disk or a serial cable can be used to share data between systems.

With the XWindows environment, we have even seen how it's possible to run PC applications and watch the results on an Amiga screen. Once you really start to use TCP/IP you will be able to move to the file system approach rather than the simple copying offered by FTP. With software such as NFS (the Network File System) and the recently ported SAMBA system, you can link the Amiga into powerful networks more easily than ever before. ■

The write thing

This month's Supertest looks at the best in word processing and desktop publishing packages. **Larry Hickmott** *is your host to our essential guide...*



"As well as being **production** tools, publishing programs are also learning aids."



I'm still not sure whether it was someone spiking my drink or it was just one of those melancholy moments, but half-way through this feature my mind – or what's left of it – started to drift back to the days when I had aspirations of penning a novel or two. I was a very mature 12 at the time and books back then were written, not tapped out on keyboards.

Luckily for the world at large, I changed my mind and took up something less strenuous like bicycle racing. The urge to put words to paper didn't hit me again until 20 years later when I found out how easy it was with the help of my trusty Amiga.

Not just the Amiga though. Let's face it, hardware is useless without software and although the choices have shrunk over the years, we still have many fine publishing packages available to us. These programs, which include word processors and desktop publishing packages, are slowly coming together to form the one category of program. Word processors for example, now enable you to lay out pages, while DTP packages are being bundled with integral word processors.

This progression is largely down to a small number of folk based in the UK and over the water in America, who despite facing an unknown future with the Amiga, have continued to develop and work hard at giving us Amiga enthusiasts user-friendly tools, for producing a variety of documents.

The benefits to you and me in using such tools are enormous. At the most basic level, a publishing program gives you the ability to create text that is readable. If like me, your handwriting is embarrassing to look at, you'll find that a publishing program helps give you back your self esteem with tools that let you create typeset-quality documents.

On a higher plane still, publishing programs also give both skilled and unskilled Amiga owners the tools to help grasp the English language in a way that may be far beyond their education. In other words, as well being production tools, publishing programs are also learning aids coming as they do with grammar checkers, spelling checkers and thesauruses.

Which package is best?

The difficulty for you comes in knowing what is the right piece of software for your needs. Do you buy Wordworth or Final Writer, or maybe neither and instead go for a desktop publishing program? There is no clear-cut answer.

When I have 6,000 words to knock out, I choose to use Protext 6.61. That doesn't mean however that Protext is the best. Far from it. It simply means that for me, Protext is best suited to the tasks I undertake and the way I like to work. Many of you, on the other hand, will be just as happy typing out your 6,000 words in Wordworth or Final Writer. So let's get away from turning this Supertest into a competition and away from that age-old argument of "mine is better than yours".

My aim in this feature is to first and foremost give you an idea of what all the tools can do for you, so you can make up your own mind as to which program is best for what you do. Before we get to the reviews though, I want to explain a few of the differences between the various types of programs.

Text-based word crunchers

In one corner we have what are known as text-based word processors, or text editors as some call them. These programs are devoid of pretty, icon-based interfaces. Instead, you'll find clear, open screens where text is represented by a single typeface in one point size.

By their very nature, the uses for a text-based word processor are fairly limited. Their strength lies in word crunching. No other type of program enables the Amiga owner to put words together quicker and print them just as speedily. Because of this, text-based word processors suit those of you who work with lots of words, or who find the wait to print a document from a graphics-based program beyond their patience. You might also benefit from a text-based processor if you're having trouble squeezing tens of thousands of words into your graphics-based word cruncher.

This is because a text-based word processor puts less demands on your hardware. Both Protext and EdWord handle themselves pretty well no matter what Amiga you have. The same can't be said of running graphics-based programs on different Amigas using fast and slow processors, such as an Amiga 500 and 1200. So whereas on the Amiga 500, a graphics-based program may seem dreadfully slow but fine on a 1200, you probably won't notice a big difference when using a text-based program on either of these Amigas.

Not just pretty pictures

Despite the name, a graphics-based program is not a piece of software that just contains pictures. The name "graphics-based" comes from the fact that all the objects on a page, both text and images for example, are drawn on-screen by your software to give you a, "What You See Is What You Get", representation of how the page will appear when printed.

What makes the graphics-based program special for most users is the visual feedback you get when combining elements on a page. Text for a leaflet for example, can be enlarged and if it doesn't look right, be reduced in size again. This interactive play with words is only possible with a WYSIWYG program.

A clash of ideals

Not all graphics-based programs are made equal though. There are some very significant differences when it comes to using word publishers like Wordworth or desktop publishing programs like ProPage.

Of all the mistakes made by Amiga owners when purchasing publishing programs, the one made the most often is in choosing the wrong type of software for the work people do. The task in choosing the right piece of software is made all the more difficult by the similarities shared by DTP programs and word publishers. Yet, differences there are.

Let's take pictures first. In most word publishers at the moment, you are restricted to a small number of picture formats, whereas programs like PageStream 3 spoil you in the number of formats supported not only for import, but export as well. No word processors on the Amiga for example support the ProClip format from ProDraw. Many will argue that this format is dead. But believe me when I say that ProDraw is more alive that it has ever been in the UK, judging by the number of letters asking me how to get images from ProDraw into Final Writer and Wordworth.

Linking together

Of more significance though, is the different way word publishers and desktop publishing programs handle text. Word processors handle text in fixed columns (not in boxes), while text in a DTP program is freeform. I think an example is probably called for to help explain this point.

Let's say you were given a job whereby you had to produce a number of pages with uneven columns, both in width and height, and those columns had to be linked together so text flows from one column to another, page to page. If you were to try such a task in a word publisher, you would quickly become unstuck.

This is because columns in word publishers are fixed in place. Sure you can have multiple



columns, but you can't suddenly decide that one column should be wider than the other because word publishers don't work like that. DTP programs do.

DTP programs though, aren't the be all and end all. Word processors also contain a number of functions that DTP programs do not. A thesaurus and in Final Writer's case, a grammar checker as well. Word processors for many are also more intuitive to use and less "threatening" because creating text is generally less involved. Simply run the program and start finger tapping.

Wordworth v Final Writer

Another area where people get confused is in thinking that all word processors-come-word ▶ 28.



Wordworth 3.1 is a powerful, graphics-based word processor that can be used for a wide variety of tasks.

Jargon busting

Drag and Drop: Drag and Drop with text is very similar to moving elements by dragging them around a page using the mouse, except that with Drag and Drop it's blocks of text you are dragging to a new position.

EPS: A popular graphics format for structured drawings. There are several subformats, with one of the most popular being Illustrator 88.

Font: A word now used by computer users to describe a typeface. Times is a font, as is Triumvirate. There are thousands, if not more, available for the Amiga.

Footer: A line or lines of text that appear at the bottom of document. These can consist of page numbers, document title, chapter name and so on.

File Formats: Different types of files like pictures and text, are stored on disk using a type of digital format. If we take text for example, you can store it in many different types of formats. Each program will usually have their own format while others, like RTF and ASCII, enable users to swap text files between different programs. The same applies to pictures.

Paragraph: A series of one or more sentences followed by a carriage return inserted by pressing the Return key. Unlike typewriters, software will "wrap" the text to a new line automatically.

PostScript:
A page description language that enables you to print a page from one program and have it output on a PostScript-compatible printer either attached to your Amiga or another computer.

PostScript also has the advantage of being portable and in many cases, lets you print pages much quicker than with non-PostScript printers.

WYSIWYG: What You See Is What You Get. A term that describes programs that show you on-screen a close representation of what the printer will produce – with the emphasis being on close.



Word processors, like the new Final Writer 4, can be used for mixing pictures and text in eye-catching layouts like this from Tony Bullock at Softwood Europe.

publishers are the same. They are not. There a number of significant differences.

In Final Writer 4 for example, as well as being able to set text in fixed columns, you can also create what are known as text blocks. These contain a single line of words. Each text block can be treated like a graphic in that it can be stretched asymmetrically and rotated, making it useful for headings and the like.

In contrast to this, is Wordworth 3.1. With this program you can also set text in fixed columns, but instead of text blocks with a restriction on the number of lines you can have, text frames (as they are known in Wordworth) let you place as many lines of text as will fit into the text frame.

The crunch comes because as yet these text frames cannot be linked together so text flows from one box to another. A factor that if overcome, will bring Wordworth even closer to being more than just a word processor. What you can't do with text in a text frame, is stretch it. To do that, although not asymmetrically, you can use the well-known Wordworth feature called Text Effects.

As you can see, it's a real minefield and we've really only just scratched the surface.

The reviews

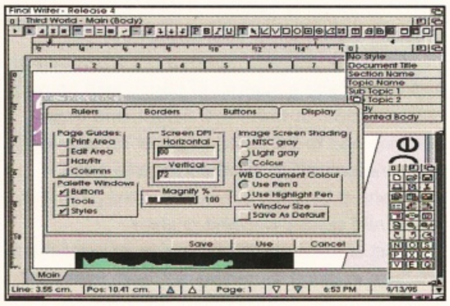
Now that we've laid down some of the groundwork on the type of products I'm looking at, let's now review each of the products on offer. The basic context of the review is to look at the popular functions in each piece of software and tell you about how each of them stand up in each department. These features will be broken up into those for text, pictures and printing, among others.



Final Writer 4

Over many years now, there has been a battle royal raging in the Amiga market between Wordworth and Final Writer. First to draw blood in the run up to Christmas 1995 is Softwood and a spanking new version, Final Writer 4. It contains several new features with the highlights being Click Tabs and Correct Text.

Let's look at Click Tabs first. One of the areas that has come in for a lot of work in this version 4 release is the interface and the addition of Click Tabs. These are tabs on windows that let you navigate your way around a document at the click of a mouse button. Whether it's a page you want to go to or a new



Final Writer 4 has had a bit of a facelift and now sports Click Tabs on windows, to help you navigate your way around a document.

section within your document, Click Tabs are there to make it easy.

Another useful addition to Final Writer is the variable zoom that enables you to adjust the magnification you view your page at. An Information tool bar has also been added along the bottom of the screen with several functions, including two that enable you to insert the date and time into your document at the click of a mouse button.

Although not new, it is also worth mentioning a feature of Final Writer that enables you to have more than the one section within a single document. This enables you to have pages that have different margins, master elements and so on. This one feature has made Final Writer very popular with authors of technical documents.

Text handling

Of all Final Writer's features, its handling of text is far and away the best. There are several points worth mentioning like the NimbusQ fonts that Final Writer uses. These not only refresh very quickly when typing your text, but will also print to both PostScript and non-PostScript devices. Final Writer 4 also has Style Tags which enable you to apply a set of attributes to a piece of text in the one operation.

Text in Final Writer can either be set in one or more columns and for headings and such like, you can create text blocks like I explained earlier.

Final Writer is also quite good when it comes to letting you make use of pictures on your page. A number of graphics formats are supported, including IFF-ILBM and EPS. If you intend using any other bitmap formats, you need a program like ImageStudio 2 that enables you to change them to IFF-ILBMs for placing on the page in Final Writer.

When you come to print your pages, Final Writer supports both PostScript and non-PostScript devices. And should you run into trouble, the manual for Final Writer is very comprehensive. Within its pages, you'll find tutorials on how to use the program, as well as finding a large reference source for the program commands.

System requirements

Final Writer requires a hard drive and at least 2.5Mb of free memory. That's memory left after you have run your Amiga. The full package takes up about 12Mb of disk space. Support for CompuGraphic fonts requires Workbench 2.1 or above.

Final Writer 4

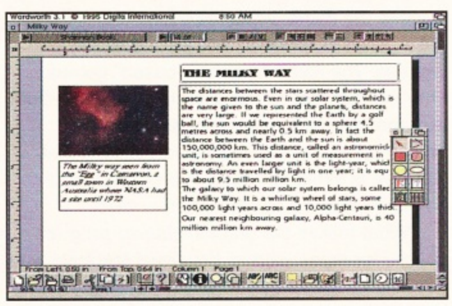
Price: £74.95
Supplier: Softwood Europe
Contact: 01773 836781
Verdict: 90% Star buy

Wordworth 3.1 R2

Although revision 2 of Wordworth 3.1 is the current version, the main question in the Amiga world at the time of writing is, 'Where is version 4?' You will have probably already noticed by now, that we have version 4SE on test here. This I'm told by Digita, is just a taster for the upgrades to come.

Framed!

When it comes to tapping text into Wordworth, there are a number of features worth mentioning. The first on my list is Text Frames. These are boxes that let you place multiple lines of text anywhere on the page within the printer's



One feature which sets Wordworth apart from other word processors, is its ability to have multiple lines of text in text frames of any size.

hardware margins. You can have as many Text Frames as you like on the page but the Text Frames cannot be linked. More's the pity.

Another prominent feature that seems to grab the headlines for all the wrong reasons is Text Effects. This is thought by many to be a gimmick which is rather unkind considering what it can do. You can, for example, use it to create headlines that can be stretched and rotated, or made to wrap around pictures or shapes.

When it comes to editing text, Wordworth provides you with a number of useful tools. There is Auto-correct that lets you create a dictionary of words or acronyms that Wordworth can pick up on and expand, or in the case of misspelled words, correct. I, for example, have a problem with one finger getting in front of the other and so often write "porgram" when I meant "program". The Auto-correct function lets me tell Wordworth that whenever it sees the wrong spelling to replace it with the right one.

Others tools worth a quick mention are Drag and Drop text editing, support for True Type fonts and mail merging more than one record per page. A feature that enables you to create sheet-based sticky labels from a database file.

Pretty as a picture

Like any good word publisher, Wordworth has a number of functions that let you place several different types of pictures on the page. Providing you are using Wordworth with a hard drive, you can import EPS images on to the page, as well as the popular PC format of CGM with or without a hard drive. Wordworth will also import IFF-ILBMs and a wide variety of other formats like GIF for example.

Graphics in Wordworth can also be linked to the original on disk, so that any changes made to pictures used in a Wordworth document are automatically taken care of by Wordworth, either in real time or when you reload the document.

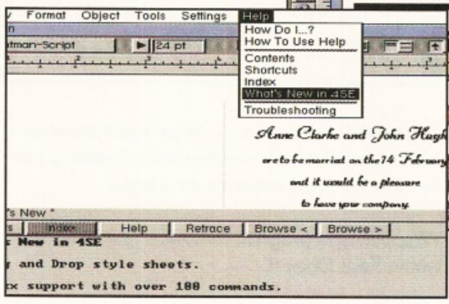
Hardcopy

Like most powerful publishing programs, Wordworth is quite flexible when it comes to output. You can choose normal output, which is what you use if you have a non-PostScript printer, PostScript for PostScript printers and Printer Font for printing pages using a printer's internal fonts. Wordworth also comes with a program called Digita Print Manager which gives you more control over your printed output.

The documentation for Wordworth 3.1 comes in a perfect-bound manual

Right: Wordworth 4SE is the word processor being bundled with the new Amigas. It contains a number of new features that are tasters for the forthcoming upgrade to 3.1.





Left: If you want to know what's new in Wordworth 4SE, just look in the Help files to find out.

numbering more than 330 pages. Also available separately from Future Publishing (01225 822511) and Digita International (01395 270273) is the Wordworth Companion, which explains how to use the program with tutorials and such like.

To use Wordworth 3.1 r2, you'll need a hard drive or two floppy disk drives and at least 2Mb of free memory. Notice I said free memory.

Wordworth 3.1 R2

Price: £69
Supplier: Digita International
Contact: 01395 270273
Verdict: 90% Star buy

Wordworth 4SE

(Amiga Magic bundle version)

If Wordworth has ever lacked anything, it's been Style Tags, and to a smaller extent, ARexx. Both features have found their way into the special bundle version of Wordworth 4SE. This is very much a taster for what Digita call bigger and better upgrades coming soon for those who already have an Amiga and are looking for a word processor, or to upgrade their existing one.



Despite the addition of two major features, the interface for 4SE is not that much different to previous versions of both Wordworth 3.1 and 3.1SE. The main talking point is going to be the new Style Tags.

Now that Wordworth has Style Tags, the text handling of the program has improved remarkably, making it much easier to get a consistent look to a document without having to remember that each piece of text has different attributes. Like Wordworth 3.1SE, version 4SE only supports Intellifont fonts unlike its illustrious bigger brother which works with True Types and PostScript fonts as well.

Wordworth has always been good with pictures and nothing much has changed here. It still supports both IFF-ILBM and CGM images. No other graphic formats are supported. Wordworth 4SE also has the Picture Frame for telling the program to import an image at a set position and size. The printing capabilities of Wordworth 4SE are strictly non-PostScript.

Help

Because this is an Amiga Technologies bundled program, I haven't seen the manuals that will accompany it. I did however have the on-line help which is context-sensitive. So if you want to know what all the 100 ARexx commands are, you can by pressing the Help key.

Wordworth 4SE

Price: Free with new Amigas
Supplier: Digita International
Contact: 01395 270273
Verdict: 87%

Final Copy II Release 2

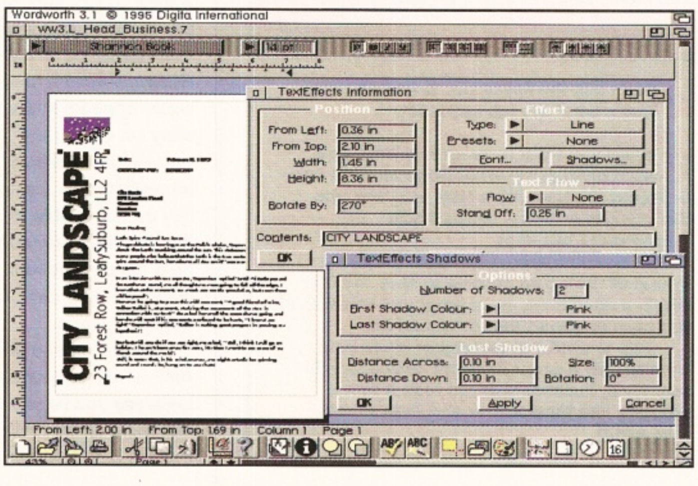
This is not a new program, but is one that you may find useful if you don't have a hard drive or lots of memory. Whereas Final Writer 4 requires both these aforementioned pieces of hardware, Final Copy II will run on a standard Amiga.

The interface for Final Copy II is very uncluttered for a word publisher with the sort of features it boasts. There is only the one tool bar to worry about and in that you'll find most of what you need to draw boxes and lines, as well as format your text in a number of ways.

Also in common with its stable mate, Final Writer, Final Copy II supports the use of

30

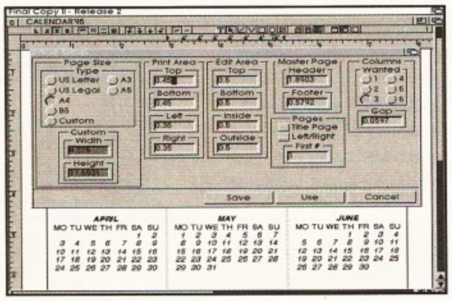
Text Effects are one feature of Wordworth 3.1, and far from being a gimmick, it lets you create text for headlines – like this one that has been rotated 270 degrees.





master pages, whereby if you need a set of objects to be present on all of your pages, you put them on a master page and every page thereafter will also contain those same objects.

Final Copy II's text handling is also quite good for a package that is aimed at those people using un-expanded Amigas. As well as boasting Style Tags, Final Copy II also makes use of those wonderful NimbusQ fonts which produce very good quality output. It does, however, lack the text block feature found in Final Writer and as such, you won't find a Final



For what is supposedly a basic word processor, Final Copy II is very configurable, enabling you to have up to six columns on a page.

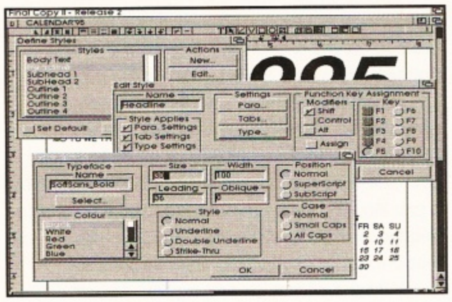
Wrapper-type program to create Text Effects within Final Copy II.

A single format

There aren't a lot of graphics formats to choose from when it comes to using pictures with Final Copy II r2, because only IFF-ILBMs are supported.

As I have already said, providing you have a program like ImageStudio 2, that isn't a problem. What it is missing are filters to import structured format graphics and there is no way around that.

It makes up for this in that it supports both PostScript and non-PostScript printers. The



If you ever format large amounts of text you'll know how important Style Tags are – Final Copy II is very well endowed in this area.

manual for Final Copy II is also top-notch, being neither too big or too small.

Final Copy II

Price:	£49.95
Supplier:	Softwood Europe
Contact:	01773 836781

Verdict: 85%

Protext 6.61

Unlike all the other word processors in this review, with the exception of EdWord, Protext is a text-based program. That simply means that your text is represented by a single font on screen and there is no facility for viewing pictures along with your text. In other words, it is not a "What You See Is What You Get" (WYSIWYG) interface.

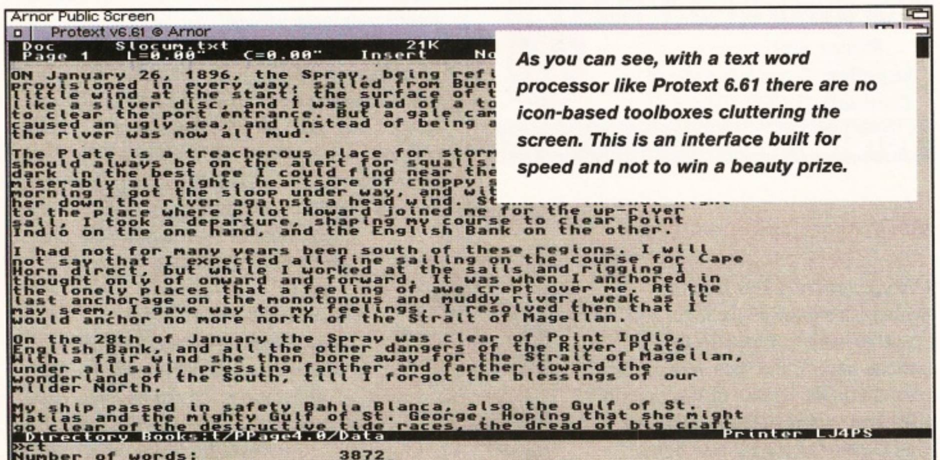
Although this has probably hampered its popularity, being text-based has its advantages because of all the word processors here, Protext is the one that many people turn to when they have large amounts of text to create or edit. The reason they do this is speed. Whether its moving about the page or putting text on to the page, Protext will keep pace with even the speediest of finger tappers.

The functions in Protext are all held in menus. There are no toolboxes to click on, which for many users is a good thing, because it means you have almost the whole screen to see your text. Many of the functions are also on keyboard short-cuts.

You can also communicate with Protext using its own command line. Files can be loaded, saved and much more. Whenever I want a word count for example, I can get it by pressing the Esc key to bring up the command line, typing the letters "CT" and then pressing Return. Within a second or less, the word count appears in the command line and I can carry on writing.

As I have already said, text in Protext is represented by a single font. So, for those who rely on being able to see all their text in the font that it will be printed with, Protext will probably be a disappointment. However, that doesn't mean that you can't have text printed in different fonts on paper.

Protext is one of the few programs on the Amiga that supports custom printer drivers. Let's say you have a Colour Stylus and want to use the internal fonts for that printer. With Protext 6.61 you can because there is a printer



As you can see, with a text word processor like Protext 6.61 there are no icon-based toolboxes cluttering the screen. This is an interface built for speed and not to win a beauty prize.

Amiga Shopper's top five tips

1 **Although the dictionaries that come with most packages are quite comprehensive, most still give you the option of creating a user dictionary for those special words, like Amiga.**

2 **If you have only ever used a typewriter, there are a number of things to remember. Don't press the Return key at the end of each line because the software will take care of that for you. Only press the space bar once after punctuation.**

3 **If your software supports an Autosave function, set it to 15 minutes and make sure it is on. It's worth the odd interruption to know that your work is safe.**

4 **Don't use the space bar to line up items. That's what the tab key is for.**

5 **When you want to swap text from one word processing program to another one, or import the text into a DTP program, you can use a text format called ASCII (pronounced ass-key).**

While most programs use a propriety format of their own making to save the text within a document, most programs will also let you save or export the text as ASCII.

This is useful to remember when you want to edit a script like your User Start-Up sequence, because you can load it into a program like Final Writer and then export it as ASCII.

driver for it. The only thing is, you can't see that formatting on-screen. There is however a compromise in a screen preview of the printed page including any graphics.

Like many of the programs here, Protext also supports the use of Style Tags so you can apply different styles to text, such as bold, italics and so on.

Surprising to many, Protext also supports the use of pictures in documents, even colour ones. However, pictures are not viewable on-screen. Instead, Protext places an internal command in the text so that a picture is printed at that location when you output the page.

Protext 6.61

Price:	£74.95
Supplier:	Compo Software
Contact:	01487 773582

Verdict: 82%

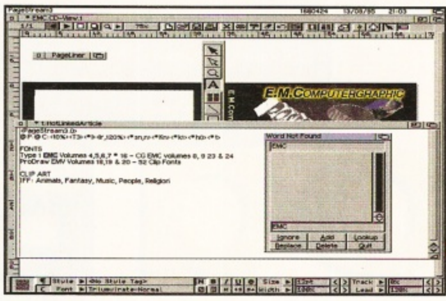
PageStream 3

Released almost a year ago, PageStream 3 is now starting to blossom into the program many people were expecting with the original release. Over the past 12 months, Soft-Logik have made available upgrade patches for the program which one-by-one have made PageStream more and more usable.

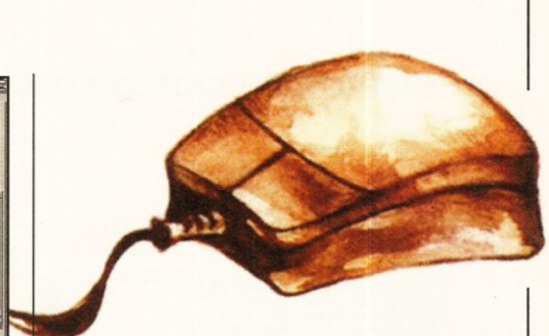
The current upgrade at the time of writing is 3.0i with the upgrade following due to be 3.1, which I'm told is going to be a free one.

For those who haven't see it, PageStream 3 is a very different-looking program to the previous PageStream 2. With their eyes set on other platforms, Soft-Logik have put a lot of work into making PageStream 3 not only work in the Amiga way, but also provide many features only ever found in DTP programs on foreign platforms.

One of these is the Edit Palette which stays open on your screen and can be used for changing the attributes in the current object, whether that be text or graphics, without having to go into a menu or other hidden palette.



PageStream comes with an integral word processor called PageLiner which can be run on Workbench or on other public screens like PageStream 3's.



PageStream 3's strongest point is as ever with text handling. The program is supplied with an integral text editor called PageLiner which sits on a public screen and can be used for editing large amounts of text. For headlines and such like, text objects can be created on the page and then stretched to fit a space. More interesting though, is PageStream's ability to place text into objects other than just rectangles.

Of more value in day-to-day use is the way PageStream can access fonts. Unlike ProPage, where its fonts have to be in a single directory called CGFonts, PageStream can access fonts from multiple directories at any time, even after you have run the program. This means you can stick a CD of fonts in a drive and make use of what you want, when you want.

Pictures and PageStream

PageStream is also looking promising in its graphic support. You get a program called BME with PageStream 3 which enables you to edit bitmap images that can be sent back and forth between it and PageStream. You do however require lots of memory for this because both programs need to be running. If you haven't got around 8Mb, you probably won't have enough to multitask the two.

As well as BME, PageStream also imports a large number of graphics formats but not CGM. There are also optional filters available as extras, like one for importing JPEG files and another for creating special effects.

As any DTP program should, PageStream 3 has strong support for the output of documents. It comes with a large number of printer drivers which now includes, I believe, support for the Epson Stylus. It also provides what are known as PPD (PostScript Printer Drivers) for a wide variety of PostScript devices.

Anyone looking at doing spot or full colour work should also be aware that PageStream is the only Amiga program I know of that supports high-end functions like trapping and so on. If you aren't sure what these are, then you probably aren't ready for colour printing on a printing press yet, but the manual for PageStream 3 will set you right.

Heavy reading

And a very large perfect-bound manual it is too. Numbering more than 540 pages, it is very well presented covering the thousands of features in PageStream 3. Allow yourself a bit of time to read it, because PageStream 3 is full of functions that you may miss unless you are paying attention.

If you are very tempted by PageStream 3, then be aware that from version 3.1, it will require at least 4Mb of memory and a hard disk. To be productive working with graphics and so on, you'll need at least 8Mb of memory in your Amiga. An accelerator is also useful, as this is a powerful program, needing a powerful Amiga.

PageStream 3

Price:	£134.95
Supplier:	Soft-Logik Publishing
Contact:	001 314 256 9595

Verdict: 87%

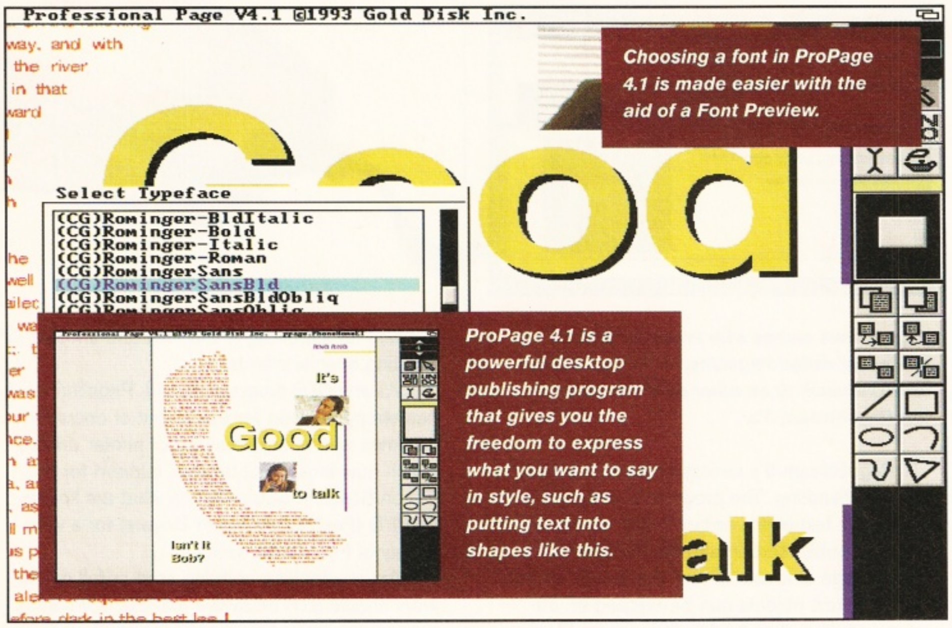


When you need to edit a bitmap image in PageStream you can call upon the services of the excellent BME seen here sitting on PageStream 3's screen.

Professional Page 4.1

Professional Page 4.1 has been around for a couple of years now and due to customer demand has only just been re-released in a new package by LH Publishing, an Amiga business headed by myself. Before the cries of "conflict of interests" ring out, read this review first. Facts speak volumes when it comes to this product and a score of 94 per cent in May 1993's Amiga Format, sums up how good Professional Page is.

ProPage, like ProDraw, uses a custom interface which flies in the face of the Amiga way. This interface is also its weak point, because although the program works fine on fairly standard Amigas, such as A1200s and A4000s with a hard drive and some extra memory, there have been a number of people reporting that on older Amigas – those running



Choosing a font in ProPage 4.1 is made easier with the aid of a Font Preview.

ProPage 4.1 is a powerful desktop publishing program that gives you the freedom to express what you want to say in style, such as putting text into shapes like this.

the ECS chipset and Workbench 3.1 for example – ProPage won't run in colour mode.

That aside, the strength of this interface is speed. In two-colour mode, with pictures dithered, screen refreshes are quite quick, even on an A1200. ProPage also benefits from having a function which stops the screen refreshing. Other features worth mentioning are the genies available for ProPage. The program comes with 74 as standard but many more are available as extras. These genies, such as those by Don Cox, add functionality to ProPage by automating many tasks.

You can for example, ask the program to create a page of Avery labels for you (among others), or if you have a PostScript printer, you can have a function genie create a booklet with all the pages in the right order to print on to paper.

Making words

Getting text into ProPage can be handled in two ways. You can either create the text on the page or send it via a keyboard short-cut to an integral word processor called the Article Editor. Text sent to AE can then be checked for spelling before being sent back to ProPage. The Article Editor can also be used as a standalone text editor for creating your text without having to run ProPage or used for editing User-StartUp sequences and such like.

Once you have your text on the page, you have a variety of functions available to you to format that text. As far as fonts go, ProPage uses the CompuGraphic variety and comes with a program to convert PostScript Type 1s to the CG Format.

If you have a PostScript printer, this same utility also enables you to save a ".psfont" that can be downloaded to the PostScript printer in place of the CompuGraphic screen font.

Pictures

When Gold Disk originally released ProPage 4.1, they increased its graphic support so you can import a wide variety of formats from not only the Amiga, but the PC and Macintosh too. The main formats supported are EPS, ProClip, IFF-ILBM and GIF. An interesting point about ProPage's EPS support is that images can be converted to a ProClip when imported into ProPage and then sent to ProDraw via a keyboard short-cut to be edited. This hotlink can also be used to send text back and forth so that text can then be stretched and so on within ProPage.

Printing

ProPage supports both PostScript and non-Postscript output. As far as non-PostScript printing goes, ProPage sends its output to Printer Preferences and so will work with any printer that has a Workbench driver. On the PostScript front, you can use ProPage to print files to a PostScript printer attached to your Amiga or save the files so they can be printed from another computer. The files can also be saved in the EPSF format and loaded into programs on the PC and Macintosh and printed but not edited.

The main new feature about ProPage 4.1 is the documentation. It now comes with two ring binders, one containing a manual, the other a tutorial-based book on how to use the program. Before you can run ProPage, your Amiga needs to have a hard drive and at least 3Mb of memory.

Professional Page 4.1

Price: £49.95
Supplier: LH Publishing
Contact: 01908 370230

Verdict: 87%

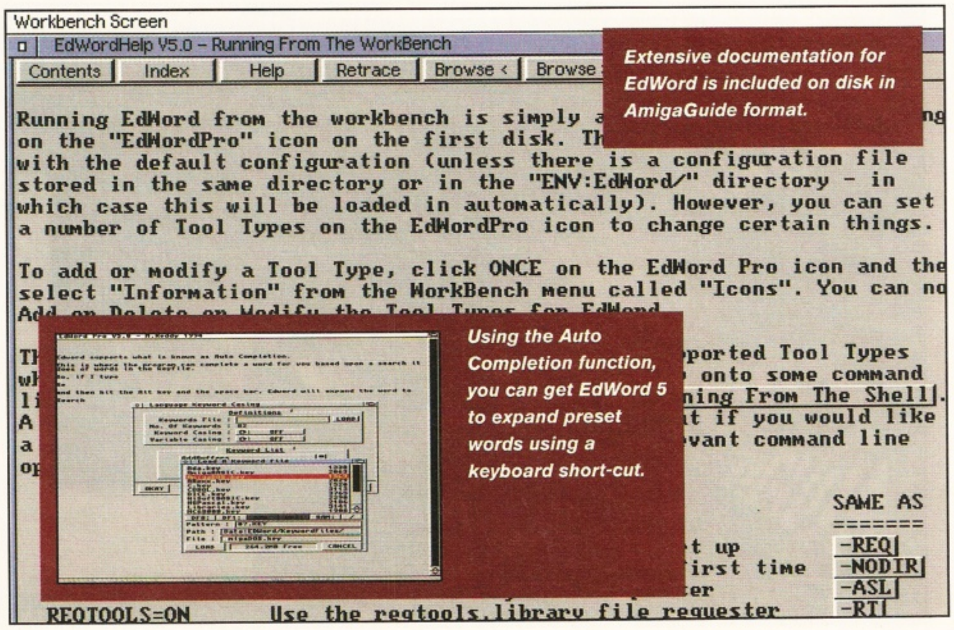
EdWord 5

EdWord Professional V5.0, written by Martin Reddy, is designed as a programmer's text editor, as well as offering numerous functions that could be of use to many Amiga owners. Like those who need a fast and easy-to-use text-based program for creating text files or editing scripts like User-StartUp sequences.

Taking almost five years to develop, EdWord has progressed over time into a powerful but easy-to-use program. It supports all the necessary functions that would be expected of any decent text editor, including cut and pasting, printing, search and replace and a special function called Auto Completion where the program can be made to fully expand a partly-completed word.

The number of functions is quite staggering as is the Help file which is not only well laid out but is also indexed using AmigaGuide. The best part is that you can get a demo version from most PD libraries to try before you buy it. The demo version is slightly nobbled in that you cannot directly save a file, although you can still use the "Save As..." option.

Despite that, I would still recommend that you send the £10 asking price to the author, to get the full version. After all, what's £10 quid? It doesn't even buy a round of drinks these days,



Extensive documentation for EdWord is included on disk in AmigaGuide format.

Using the Auto Completion function, you can get EdWord 5 to expand preset words using a keyboard short-cut.



especially when the Amiga Shopper team is at the bar.

Edword 5

Price:	£1 (demo); Regist £10
Supplier:	Active Software
Contact:	01325 352260

Verdict: 89%

Final Wrapper

When Text Effects were added to Wordworth back with version 3, many of those with Final Writer felt a little left out. One of those was probably Andreas Weiss in Switzerland. Instead of hanging around and waiting for Text Effects to find their way into Final Writer, Andreas created his own Text Effects machine using ARexx.

The result is Final Wrapper, a program which is probably as famous as Final Writer itself. Quite simply, anyone with Final Writer should get their hands on Final Wrapper. It enables you to create a number of effects, and although some patience is needed to come up with consistent results, Final Wrapper certainly doesn't lack power.

The Final Wrapper pack though is more than just Final Wrapper. Also included is a number of other ARexx scripts for use with Final Writer. Final Wrapper won't work with Final Copy II. The good news is that the unregistered version can be found on this month's Coverdisks in the Creative Zone.

Final Wrapper

Price:	Registration $15 (£10)
Supplier:	AS Coverdisk
Contact:	See documentation

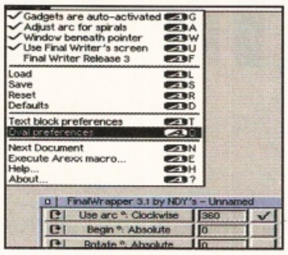
Verdict: 90% Star buy

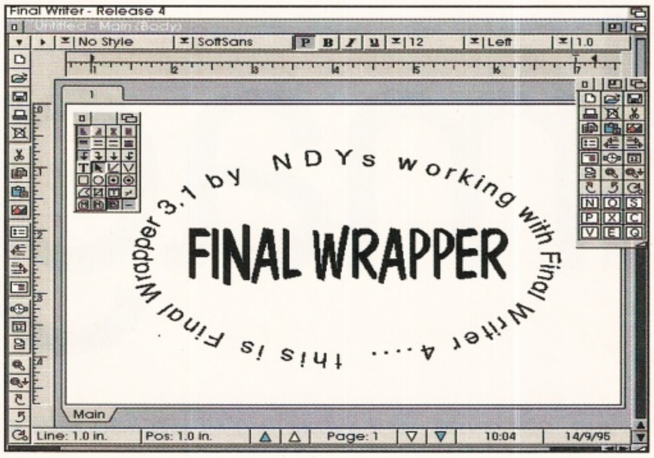
Text Engine

Of all the Shareware word processors on the Amiga, version 5 of Text Engine is certainly one of the better offerings. Like EdWord and Protext, Text Engine is a text-based editor.

Right: One of the hundreds of effects you can create using Final Wrapper.

Below: Final Wrapper is an ARexx-based Text Effects machine for Final Writer.





This makes it ideal for creating both scripts and letters.

Text Engines' most notable feature is a 36,000-word spell checker. This can be supplemented by having it learn words it doesn't recognise. Text Engine also supports up to 11 type styles including bold and italics. You can also set the margins for a document so you know roughly where on the page the document will print on the paper. Find and replace is also included.

Not everything about Text Engine is great, however. A feature the author mentions in the documentation is Text Engine running on Workbench. As this isn't a PC or Macintosh where you have to put up with such things, I see this more as a drawback. A custom or public screen option is needed. Deleting blocks of text is also a pain because you can't just press Delete like you can to delete a single character.

Text wrapping when you type out your text works well enough but once the text has been created and you starting moving things around and deleting words, it all starts to get a bit messy, and of all the problems, this is the one I think the author should look at.

Overall, Text Engine is very close to being what I would call the perfect budget-priced, text-based word processor. Perhaps version 6 will be the one that finally makes it to the promised



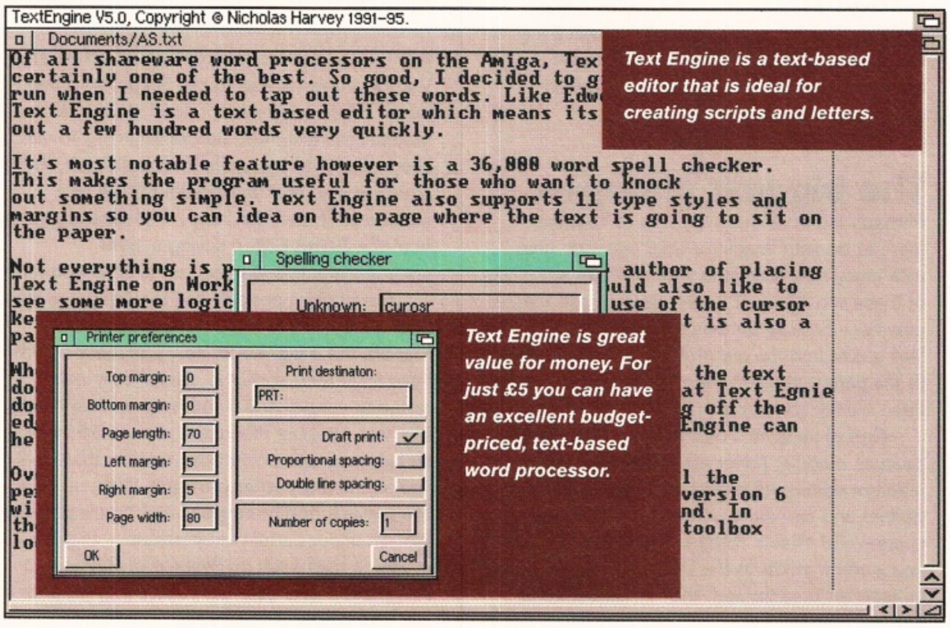
land of that much revered Amiga Shopper Star buy award. In the meantime, version 5 is still a good editor to place in your toolbox and well worth the £5 asking price. If anything, paying the Shareware fee will give the author, Nicholas Harvey, some incentive to make this fine program even better.

If you subscribe to Amiga Shopper, you can try out Text Engine for yourself, because it is featured on the exclusive Subscribers' Disk this month. (See page 68 for subscription details.) Or you can also get the unregistered version from Seasoft Computing.

Text Engine

Price:	£1.50 (Registration: £5)
Supplier:	Seasoft Computing
Contact:	01903 850378

Verdict: 87%



Text Engine is a text-based editor that is ideal for creating scripts and letters.

Text Engine is great value for money. For just £5 you can have an excellent budget-priced, text-based word processor.

Conclusion

No matter what word processing or DTP program you choose, all those we have reviewed here will provide good service. Unlike a few years ago when there were some real turkeys about, the publishing programs available today are high quality packages.

Which is why both Wordworth and Final Writer get given equal top billing here. They both have a number of features that the other doesn't and as such make sure that you take care in choosing the one most suitable for the work you want to do.

And don't forget. If it's DTP work that you are involved in, a word publisher will only provide part of the answer... ■

Imagine 4?

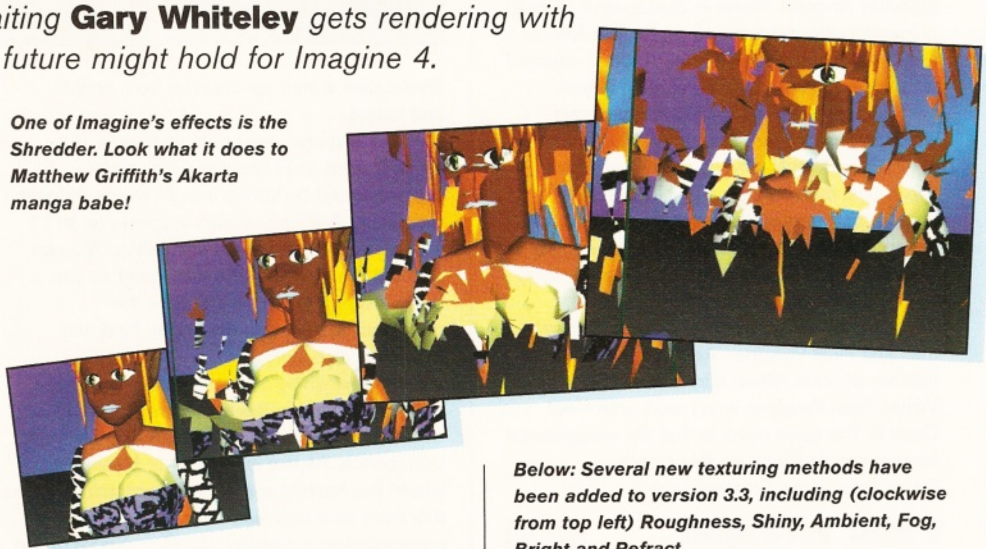
Well, not quite. But while we're waiting **Gary Whiteley** *gets rendering with version 3.3 and finds out what the future might hold for Imagine 4.*

Here we are back in the 3D arena to look at version 3.3 of Impulse's Imagine program, although I had expected to have version 4 by now since Impulse, in their 3.2 upgrade documentation, say "...it looks like Imagine 3.3 will be out at the end of March with 4.0 following close by on its heels. The constant update program promised each of you 4.0 by May and it looks like we are right on track".

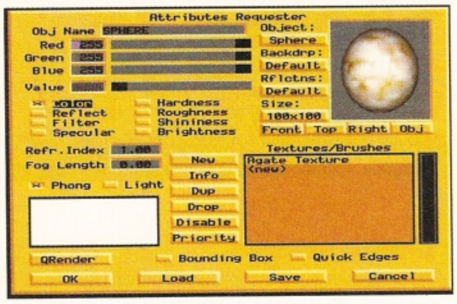
Hmm. As v3.3 only started to ship in July/August it seems that Impulse are not quite as "on track" as they would have us believe. Maybe we'll see v4.0 sometime in 1996, so until then we'll have to content ourselves with checking out v3.3 – and there's quite a bit to check out, so let's get on with it.

When Imagine v3.0 was released Impulse offered a US$100 "constant update program" to those who wanted to keep up with its development and receive interim versions of the software as they were released, culminating with Imagine 4.0. So let me make it clear that v3.3 isn't a generally available release of Imagine, though it should give you an idea of what to expect in version 4, where Impulse are going and how the program has been shaping up over the last year. Judging by the number of questions I get from Amiga Shopper readers Imagine is a very popular 3D program, so there are probably many of you who want to know what's been going on, but don't necessarily want to follow the upgrade program.

Impulse have already released two update versions of Imagine – 3.1 and 3.2 – and these have included many new additions, bug fixes and so on, so of course not everything that comes with v3.3 is entirely new, though if it's worth mentioning it I will, since AS hasn't reviewed Imagine since v3.0 was released over a year ago.



One of Imagine's effects is the Shredder. Look what it does to Matthew Griffith's Akarta manga babe!



Imagine 3.3 has revamped Attributes menus, with many time-saving and improved functions, including 256-colour texture previews – if you have the right Amiga set-up.



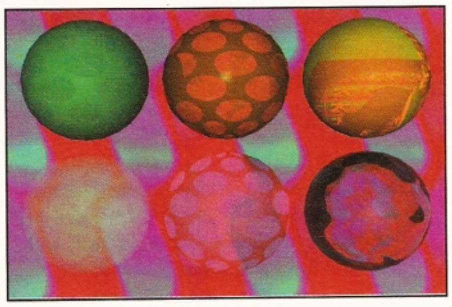
The biggest changes

Perhaps the best improvements to v3.3 are more to do with Imagine's user interface than with fancy new functions, though there are a few of these too. Many of the requesters and menus now have browse buttons to make selecting files easier and the old problem of moving back to the parent and volume of a file seems to have been mostly ironed out.

One of Imagine's biggest pains has always been its modular editor approach, with three different editors for modelling (Detail, Forms and Spline) and two more editors for setting up scenes and effects (Stage, Action). In the past if you made a model in the Detail Editor, set up its surface textures through the Attributes menu and then loaded the model into Stage and did a test render, the only way you could adjust any texture problems was to exit Stage, load the Detail Editor once more, reload the model and readjust the texture(s) before returning to the Stage Editor to try again. Well, hallelujah, those days are over and an object's texture and surface attributes can now be accessed directly from the Stage Editor, saving a lot of unnecessary time-wasting going back and forth.

Even better, not only has the Attributes menu been revamped to make it much more user-friendly, but a number of new surface methods have also been added to extend Imagine's texturing scope. And if you have an AGA Amiga the new Attribute menu can provide 256-colour texture previews so you can confirm that what you see is really what you'll get. Without AGA the preview portion remains stubbornly ghosted, though under certain circumstances (e.g. a graphics card such as Picasso or Retina and AmigaDOS 3.1) non-AGA users may be able to get 256-colour previews too.

Below: Several new texturing methods have been added to version 3.3, including (clockwise from top left) Roughness, Shiny, Ambient, Fog, Bright and Refract.



To make things even easier, there's now no need to exit the Attributes menu to do a QuickRender (test render), since a new button allows quick renders to be triggered directly from the Attributes menu – which is another great time-saver.

While we're with Attributes, a new function has been added called Mix/Morph which gives more direct control over the way that textures mix with each other on an object, so they can be easily faded up or down relative to each other, in conjunction with States settings for the object in question (remember that Imagine can use up to four textures simultaneously on each object).

There are also new colour palette sliders to make defining colours for textures more straightforward than just typing in numbers, and it's easier to see the effects of these sliders because they show colour directly in the slider box. What's more, Brightness now has a slider of its own to set its level, rather than being simply on or off as it was previously.

Animations can now be used as textures where previously only sequences of single images were permitted. Of course, without using 24-bit animations this feature could be quite limited, but I'm sure that there are many ways in which it could be profitably used.

Finally, there's a new menu called Quick Attributes which pops up so that you can simply click on a texture's name to apply it to an object. This menu can contain up to 25 of your favourite textures (or even brushes) and is defined from the Preferences menu.

Modelling tools

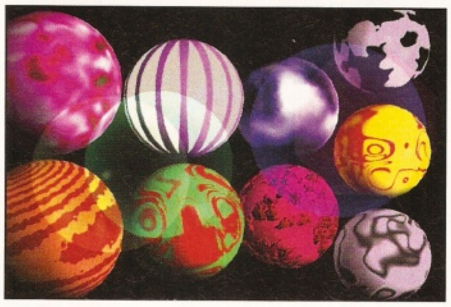
If you've ever been frustrated by Imagine's lack of an autofacing tool to automatically add faces between points and edges of your choice – for example when joining the limbs of a figure to its body – take heart, because although Impulse still haven't actually implemented autofacing they've done the next best thing and provided SetEdgeLine/FillEdgeLine tools which make facing much easier.

First select the objects you want to join, use the Join command to make them one object, choose the first set of edges you wish to face, select SetEdgeLine, deselect the first edges, select the edges to join to, select FillEdgeLine and the two sets of objects will be faced automatically. OK, it's a bit of a rigmarole and it doesn't work consistently every time, but it's a great time saver and takes most of the tedium out of adding faces to complex objects.

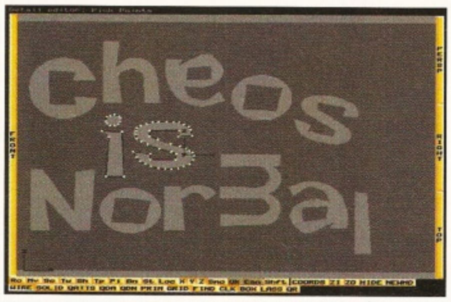
Another new edge tool, Smooth Edge Line, can be used to smooth out a curve of edges. For instance, if you've modelled the profile of a light bulb for sweeping and the curves aren't as smooth as you'd like, Smooth Edge Line will help sort them out.

Bones have been improved with Smart Bones to reduce the time and complexity of setting up bones and the scope of States has been expanded slightly. A number of new textures have been added and the texture menu has been made more interactive and informative.

Background images can now be loaded into the Detail, Forms and Spline Editor so that an object, such as a logo, can be built up manually



Here are a few of Imagine's new textures, with a dash of lensflare thrown in for good measure.



Background images can now be loaded to provide a template for object construction.

from scanned or grabbed artwork or objects can be rotoscoped from a sequence of video grabs or an animation. The drawback here is that as soon as any function needs a screen redraw (such as moving the view window) it will kill the backdrop, but it's better than nothing, I suppose.

Rendering and effects

Several new effects have been added, including Shredder, NewFlare and Haze. Shredder is sort of a cross between the Explode and Particle effects which strips an object down into chunks and then flies them around, but it can be very processor-intensive (i.e. pretty slow). NewFlare is a Global effect which (supposedly) does better lensflare effects than previously, though it looks exactly like the same old LensFlare to me. Haze (another Global fx) provides for glowing, neon-like effects on specified colours. There is also a range of post-processing effects, some of which are quite nice, especially Toon, which gives a Cel-animation effect to each frame. Global effects are all added after the frame has been rendered. One small gripe – the Cepia effect on my disk appears to be a duplicate of the Melt effect, just with a different name. Surely this can't be right?

Interim documentation

Well, I have to say that Impulse are down to their usual low standards of documentation (though at least they are on disk, which saves a few trees). Whilst at first sight the supplied docs look OK, there are times when they are more incomprehensible than comprehensive. For instance, the Shredder.ifx doc starts off suggesting it's going to be a tutorial, but within a couple of paragraphs the tutorial just fades away!

And please guys, I know I've said it before, but how about running a spell checker over your text before releasing it? At least then we wouldn't have to put up with constant references to "Primatives" and "Perpindiculars". I know they are only interim docs, but please, Impulse, don't insult us with your bad spelling, poor layout and half-baked tutorials any longer! Imagine users deserve better.

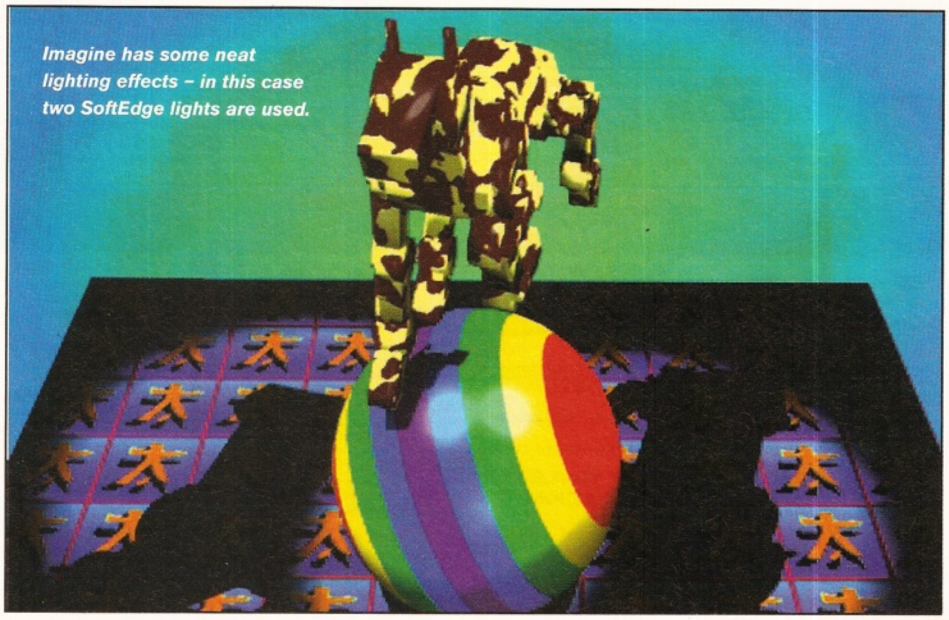
That said, Imagine still offers great value for money and the new features, bug-fixes and other improvements (and there are quite a few more that I've not been able to squeeze in here) should keep Imagine fans happy until version 4 finally hits the shelves.

To run Imagine 3.3 you will need an Amiga (preferably AGA with hard drive), loads of memory and a fast processor. Gary Whiteley can be E-mailed at: drgaz@cix.compulink.co.uk. ■

Imagine 3.3

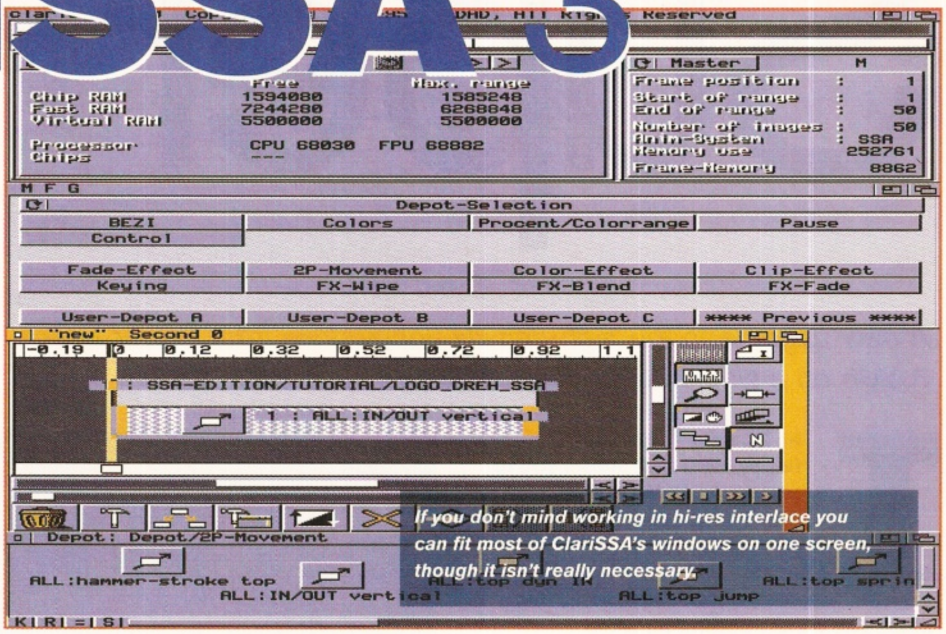
Price:	£99.95 for upgrade
Supplier:	Emerald Creative Technology
Contact:	Freephone 0500 749469

Verdict: 86%



Imagine has some neat lighting effects – in this case two SoftEdge lights are used.

ClariSSA 3 Professional



If you don't mind working in hi-res interlace you can fit most of ClariSSA's windows on one screen, though it isn't really necessary.

Would you like faster, smoother, funkier animations on your Amiga? **Gary Whiteley** *discovers how ClariSSA 3 makes it possible.*

Last month I looked at MainActor Pro, an animation format conversion and compilation program. Now I have another powerful animation utility, ClariSSA 3 Professional, to review – if you think that all animation tools are the same you'd better read on, because the objectives of MainActor Pro and ClariSSA 3 are quite different.

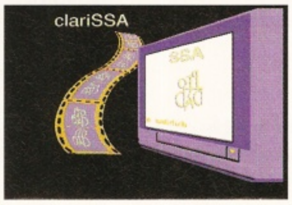
Whereas MainActor Pro is largely concerned with either building anims from frames or inter-converting them between other computer platform formats, ClariSSA 3 is aimed squarely at the construction, optimisation and editing of Amiga animations by providing a wide range of accessible tools which can, amongst other things, remove or add frames to an existing anim, do movement, colour and other effects on anims while they play, and combine animations from sources which have different palettes and/or resolutions.

Heart of the matter

The heart of ClariSSA is its innovative SSA (Super Smooth Animation) system, which in effect turns a standard IFF anim into a fully interlaced 50-fields per second (Amiga permitting) animation, rather than the standard 25fps version which most of us use to match TV display rates. By interpolating each frame of an animation into two fields the resulting playback appears much smoother (hence SSA) and therefore eminently more viewable. ClariSSA only plays back and manipulates SSA-type animations, but it's simple enough to load a non-SSA anim and click a few buttons to convert it to a suitable SSA format.

In v3 ClariSSA's SSA format has been extended to provide more speed and power by incorporating new compression and playback methods. Previously SSA had no access to Chip RAM but now High-End SSA (or SSA5) can use Chip RAM, resulting in up to 80 per cent faster playback over 'normal' SSA, which is quite an achievement. Another new addition is SSAd, which can intelligently load and play back an animation from hard disk and, whilst SSAd is dependent on the speed and capacity of the hard drive, it still offers more speed than standard IFF Anim5 animations and uses less memory resources too.

Where ClariSSA 3 really scores is in its new effects routines which, coupled with its more friendly interface (though it might not look it), open up some very interesting possibilities for Amiga animators. For instance, an animation can be moved around the screen, or wiped, or cropped, in a variety of ways (even while it continues to play) and these effects can be achieved easily by using drag and drop icons from one window to another. Animations can also be cross-faded from or to a blank screen colour, and many colour effects produced, without the need for any pre-processing whatsoever. Think of all the time you would previously have spent concocting sequences of images with ADPro or ImageFX doing such processing in the past. Well, now you can do it almost on the fly – though with the usual caveat that your Amiga has enough power for the project you're trying to do. You can even insert frames which are in a totally different resolution and palette into an SSA animation and still come up with pleasing results.



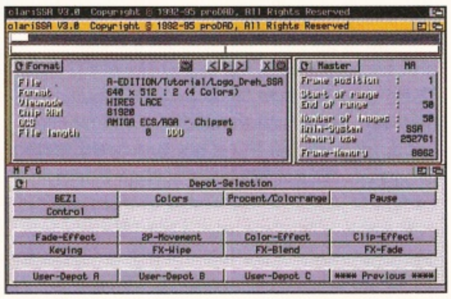
On-screen images look much better than this grab can show due to ClariSSA's SSA system.

The layout and implementation of ClariSSA is very functional, often providing several alternative ways to achieve the desired result and, on the whole, quite easy to learn and use, especially when its extensive system of macro buttons is brought into play.

Many aspects of the program can be customised to best suit the user's needs and ProDAD seem to have devised as user-friendly a program as possible, even to the extent that ClariSSA can be launched from any of a series of icons representing different customised versions of the program. ClariSSA's manuals are pretty good, particularly considering that they started out in German, and a whole range of short tutorials is provided to introduce the program's more intricate processes. Of course, the manuals have a few strange phrases, but, apart from almost all the on-disk AmigaGuide and Help files being in German and some odd spellings in the menus, ClariSSA 3 still remains very accessible to non-Germanic speakers, which says something about European co-operation amongst Amiga users.

There are several aspects of ClariSSA I've been unable to detail here, such as import/export from V-Lab, Adorage and ADPro, its extensive ARexx functionality, that Bezier curves can be used to control effects, time-stretching, and other things which many animators might find useful. These aside, ClariSSA is an impressive product which takes Amiga animation into new realms.

Gary Whiteley can be E-mailed at: drgaz@cix.compulink.co.uk. ■



Behind this simple-looking interface lurks an animation monster.

ClariSSA 3.0

Price:	£49.95
Supplier:	Burgess Video Group
Contact:	01874 611633

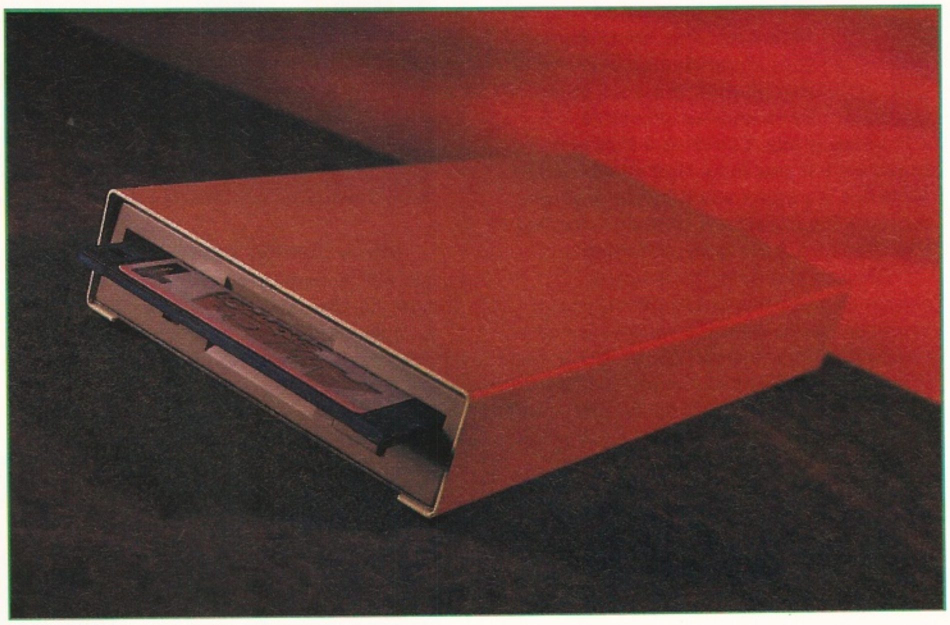
Verdict: 87%

Super XL

A new upgrade to the high-density floppy drive from Power Computing now lets you store nearly 3.5Mb on a single floppy. **David Taylor** *gets even denser.*

The XL drive is an external floppy drive that allows you to read/write both Double Density (DD) and High Density (HD) disks. The brand new Super XL drive also lets you use Extra High Density (ED) disks. These disks can store 3.43Mb of information when formatted to AmigaDOS.

Setting up the Super XL drive is relatively easy. The hardware just needs plugging in to the floppy disk port and the machine switching on. The software has to be installed and a line is added to your StartUp-Sequence at the very beginning. This sets up the drive, but it slows up your machine's boot up, not least because it insists on flashing a message in the Shell that it has been installed every time it is booted.



Patch it up!

This is annoying if you've gone to the trouble of making a StartUp-Sequence that doesn't output to the screen at all, because there's nothing you can do about it. You can't re-direct the output to nil: and your StartUp is going to be marginally slower every time. This was also a problem with the Highdensitypatch that came with the XL drive, but a further patch was written and placed in the Domain that did allow you to re-direct (See last month's Coverdisks – order a back issue on page 69). If we're lucky the same will be done for this drive.

> "The Super XL drive gives you the **opportunity** to store much more data on a disk."

In addition, the software is incompatible with some PD – which means you have to be careful with what you've got in your WBStartUp drawer. I'm not ready to blame the Super XL for this, but everything works fine with the normal XL patch, so it is a pain. It also makes my Amiga attempt to reset the screen every time I boot – you end up concluding that the software needs some more work.



Once the drive is working, you can insert any of the three types of disk and the Amiga automatically recognises the density and treats it accordingly.

The speed isn't brilliant, but a more pressing problem is the availability of ED disks. There were, apparently, a few IBM machines that were fitted with these drives as standard, but apart from that ED is not largely supported. So, you won't get ED disks in High Street computer stores. In fact, most of them don't even know what they are – I tried Escom and got a very blank stare (comforting, eh?), but to be fair no other store had them either. This means you have to order them specially and they aren't cheap. I got hold of some for £2.50 each, but the retail price is probably even higher.

I also ended up with a read/write error on my first disk, which turns out to be a bit more of a pain than with normal floppies. Here, you've got to re-copy up to 3Mb of stuff, which takes quite some time to a floppy.

As it stands the machine doesn't read ED disks that are formatted to MS-DOS, but this might be solved by writing a new mountlist. To be honest though, this isn't a problem because you're not likely to ever come across one.

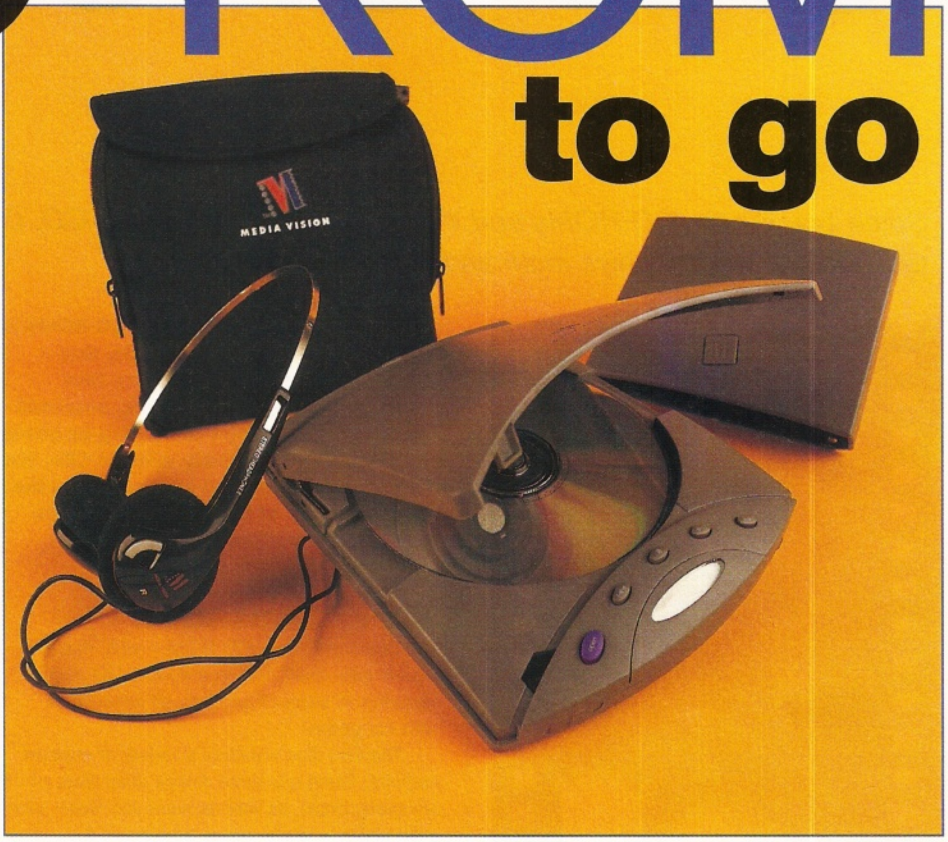
The Super XL drive gives you the opportunity to store much more data on a disk, but floppies are slow and it's only worth it if you're going to do regular backups of something that is around 3Mb. Pretty specific, huh? It's an impressive technological achievement, but it's also easy to see why the PC world dropped these disks. Unless you've got a specific purpose in mind, you're better off saving £50 and buying the normal XL drive.

Super XL

Price: £129.95
Supplier: Power Computing
Contact: 01234 273000

Verdict: 70%

CD-ROM to go

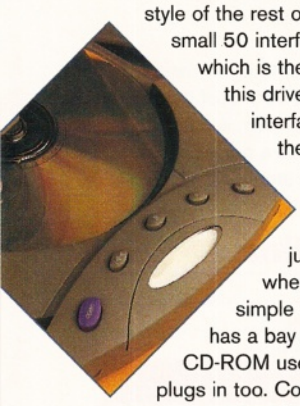


A full dual-speed, portable audio/CD-ROM drive for as little as £140? **David Taylor** *takes an eager look.*

Only a few months ago, I was lamenting the lack of thought put into CD-ROM drives. Despite the fact that they are perfectly equipped for use as an audio player, only one CD drive allowed you to use it as such without software. Well, here's a drive that goes one better. It has the advantages of audio, CD-ROM *and* portability.

The Media Vision CD-ROM drive has some excellent facilities at a rather excellent price. First things first, it's a dual-speed CD-ROM. To attach it you need a SCSI interface. If you don't have one, you can get the Squirrel, together with the customised cable, to attach it to the drive for an extra £60.

If you do have a SCSI interface, it has to be a normal DB25 (the type that looks like the style of the rest of the Amiga's ports), or the small 50 interface (micro-D connector – which is the type used on the back of this drive). If you have the large 50 interface (as the Squirrel does), then an adaptor is needed – hence the custom cable.



Once you've got the right cable, which is just a case of specifying when you order, then it's simple to set up. The drive itself has a bay that plugs into the back for CD-ROM use and a power lead that plugs in too. Connect everything up and ensure you have installed the software needed for a CD-ROM (it comes with the drive), have it set to the correct SCSI device and off you go. Very easy indeed.

Ah, you're wondering what bay I'm talking about? Well, you can choose to use this drive as (a) CD-ROM/Audio CD player with mains, (b) Audio CD player from batteries or (c) CD-ROM/Audio CD player from batteries. For (a) or (c), you need to have the CD-ROM bay slotted into the back. As a portable CD-ROM, it's quite battery-intensive, using a total of 12 AA batteries (eight in the bay and four in the main drive).

The audio part of the CD is just like a normal portable CD player (not a Walkman though, because it does require some stability so that it doesn't skip.) There are the usual controls: Play, Stop, Skip and Eject. The lid of the drive lifts up; it's not a tray loader, so be careful with the lid. There is also a hold button to lock the lid closed and to lock out the controls so that you don't accidentally brush them. Plus, there is an LCD display to give you information on the tracks.

One drawback is that the drive can be quite noisy (well, as noisy as a CD ever is) when it spins up a disc, but that's probably down to the lack of sound insulation possible on a portable drive – there's no big box surrounding the drive itself to dampen the sound. Still, it's no noisier than some hard drives.

> "The Media Vision CD-ROM drive has some **excellent** features at a rather excellent price."

The Stop button doubles as the On/Off switch – double-click it and the unit switches off. Press Play and the unit is re-activated, but the disc is not played (so if you have a data disc in, you don't have to worry about it playing it).

The Audio Out is by means of a earphone jack which you can attach to headphones (supplied with the unit), or to a set of speakers.

The drive comes with a pouch to fit the whole lot into. I think you'll agree that this drive is heading towards extreme poseville.

What you get here is a CD-ROM drive which is easily ported between computers, with the advantage of playing audio CDs whether it is attached to the computer or not. In addition, you get a portable CD player for train journeys.

The Aiwa ACD-300 (reviewed in AS53), which is the only other drive to offer audio controls, looks more solid, but with that comes the fact that it's heftier and less agreeable to lug around. This drive is lightweight and has plenty of extras to make it suited to being moved around. HiQ may not see their review drive back for some time! ■

Media Vision drive

AMIGA SHOPPER

Price:	£139.99
Supplier:	Hi-Q
Contact:	01525 211327

Verdict: 92% — Star buy

CD check out

Some brand new CD-ROMs and the ability to "write" to any CD. Does that sound like your cup of tea? **David Taylor** *plays mum and pours out the details.*



Sci-Fi Sensation has many different files, including this excellent animation.

The drawback with CD-ROMs is that they are exactly that – Read Only Memory. One program, CD-Write, proposes to change everything by giving you the ability to virtually write to CDs. We deliver our opinion and also bring you the usual round-up of the latest releases on the CD-ROM market.

Sci-Fi Sensation

The Science Fiction CD-ROM – well, that's what it calls itself. This is a double-CD pack featuring all sorts of goodies, all associated with the genre.

The first disc contains a variety of support material. There are some Amiga anim files, which are pretty basic, as well as some flic files – with a flic player – which range from basic to superbly-rendered sequences. There are also some images, which are largely stills taken from films – from Batman to Aliens, they're all here. The quality of some of these GIFs leaves a lot to be desired. The clipart is similarly poor quality.

On the sound front, there is a reasonable selection of mods that should keep you entertained for quite some time. Some are good, others less so, and some are simply sampled versions of theme tunes.

Also included is a MagicWB directory, containing not only the program, but also a selection of Star Trek backdrops for your new Workbench. Again, these are not quality-assured. One other area that could be of interest (depending on how much street cred you're willing to sacrifice) is the text directory which has info files on many of the Sci-Fi series – unfortunately, some of it smacks of anorakdom: "This file is eyes-only with a level 2 clearance... compiled by Special Agent." (extract from X-Files). I wish it were tongue-in-cheek, but I'm not so sure.

But there's much more than this. There's a set of games, mostly PD shoot-'em-ups (quite good actually), and a set of games gfx, which can be used in your own game creations. Klodike cardsets are here, as well as samples from the films and TV series (Trekkies are well catered for).

In addition, there is an Amiga-only area (this is a multi-platform CD), which contains a set of DMS files with an assortment of disks archived – some demos of games, others collections of multimedia support material.

Last, but by no means least, there is the 3D object folder. This folder has the objects split into program areas and there's something for Real3D, LightWave and Imagine users. The directories are split further into themes, like Star Wars, which then contain objects, textures and even some full scenes. It's a pretty comprehensive collection of objects for use in what is probably the most popularly-rendered genre. There're going to be some happy fans.

All in all, the first disc has lots to entertain, use, play, and play around with. You'll be engrossed for quite some time.

The second disc contains a set of anims, movies, MPEGs and more flics. The quality varies, but it's bound to keep you interested for a while – even if it doesn't have as much long-term appeal as the usable material on the first disc.

Both discs have a set of tools on them for use with the files and at the very least it means that viewing/hearing/playing them is easy. As a Sci-Fi fan, I think this CD has a great deal to offer, but don't buy it if you aren't into this stuff, because you won't like it!

Sci-Fi Sensation

Price:	£19.99
Supplier:	Epic Marketing
Contact:	01793 490988

Verdict: 80%

Frozen Fish

Since the very beginning, Fred Fish has been with the Amiga, compiling disks of freely distributable software. Aside from Aminet, the Fish disks have been the universal source of Amiga PD.

This CD includes, by popular demand, the first 1,000 disks, as well as the latest 100 (1,001-1,100), all archived in Lha format. There are also pictures taken from Fresh Fish 9 and some animation and graphics utilities, also from Fish 9. The CBM native Developer Update kits are also included.

If you don't have the first 1,000 Fish disks, then this is a fantastic CD, but if you've collected the others, you'll be better off looking at Fresh Fish 10 (which we'll review next

CD-Write: Virtual writing to CD-ROMs

Have you ever got frustrated because you can't make one little change to a file on a CD-ROM? All you want to do is change the default tool in an icon. Or maybe you find a shoddily-put-together CD that has tools set for directories that don't exist on the CD and you can't run the program directly from the CD because of it. Well, CD-Write is the solution.

This program, once installed, creates a second device for each CD volume, so CD0: gets CDW0: (the 'w' standing for writable). CD0: is the normal CD volume and you can't write to it, but if you use CDW0:, you'll find you can make any changes you want. You can even change the name of the CD, which has, by default, the same name as the CDx: disc, but with a "CDW-" prefix.

So, what does it do? Well, it doesn't transform your CD-ROM drive into a re-writable medium. You can't suddenly cut CDs on your system. CD-Write creates a custom directory on your hard disk in which it stores any changes you make to the CD. Then, when you access the CD via the CDW path, it automatically combines the original CD with any updated files you've made, so that any application believes that the real contents of the CD are that combination. Should you access the CD from the original CD path, then the changes will not be apparent.

The drawback with this is that CD-Write can't simply store the changes. It actually has to store the complete new file. This isn't a problem if you're just changing icons, because you can spare the few K required to store the new icons. However, if you're loading pictures, changing them and saving them, or just changing image formats, then there's really no difference between loading the file from CD, making the changes and saving it to your hard disk and using CD-Write.

Thus, if you change an anim file (which is a clever system by which the Amiga does actually store only the changes information from frame to frame, instead of the full data for each and every frame), CD-Write saves the full-size animation to hard disk, even if there has been only a minor change made to one frame.



The CD-ROM and its re-writable counterpart with the files stored on hard disk.

There is no way for the two (the original animation and the changed frame) to be spliced, even though this is a filesystem that revolves around saving changes. It would have been a much more monumental task to attempt to create something that could recognise filetypes and then create a way in which only the changes were stored. Thus, the whole area has been avoided and CD-Write doesn't concern itself with changes, it just restores the files.

One area that CD-Write could prove useful in is when mastering CDs. You can now make a few changes and see if that's how you want it without cutting a new CD (but couldn't you do that by having the whole contents of the CD on a hard disk, which is where the first cut of the CD is going to originate from anyway?) The only advantage is that you can keep the first cut of the CD and the new, changed version, without using the same amount of memory, unless you change every file, of course. There is one thing to remember here and that is if your CD is nearly full and you make virtual changes, you're not going to know whether you've put too much extra data on to the disc, because you get a 'disk full' requester for your hard disk, not the CDWx: volume.

CD-Write comes with an installer, which should allow you to install the program either using a mountlist or the DOSDrivers icon-driven mountfiles. On my machine though, it would only install the mountlist version automatically. Done manually, it was possible to use the DOSDrivers version, and the documentation is so thorough that even if you don't know what you were doing, you'd be able to work it out.

For the CDWx: device to mount, you must first have the CDx: device mounted – so you can't just have the CDWx: mounted, you have both read-only and re-writable CDs showing.

CD-Write is an original piece of software that does as much as it can with the restrictions that have to apply. That said, all it really does is provide a transparent system (like DataChrome, the automatic datatype-to-IFF convertor), by which new files (from the hard drive) are passed to applications in lieu of the real ones (from the CD). And £45 is a lot of money to do just that. Still, if you want to make minor changes to CDs, or if you're a big CD-ROM user, this product is one of a kind and I'm keeping it on my system.

CD-Write

Price: £44.95
Supplier: GTI
Contact: 0049 6171 85937
Verdict: 75%

month), because that has the latest disks as well as other archives – that way you won't be doubling up your collection.

One thing that did annoy me with this disc was the interface, which didn't make it particularly easy to see the contents of each of the disks. It was quicker to view the archives. A better index would have been appreciated.

Frozen Fish

Price: $24.95 (approx. £20)
Supplier: Amiga Library Services
Contact: 001 602 4910442
Verdict: 85%

Emulators Unlimited

One of the Amiga's real talents lies in its ability to mimic other Operating Systems and other computer platforms. This CD brings together every emulator under the sun. Many of them are PD or Shareware, including the excellent ShapeShifter, and some are just demos of commercial products, like PC-Task.

While some of them offer you complete packages, they tend to be the less useful ones, like Spectrum emulators – ones that are fun to play with, but of little or no practical value. The ones that people are interested in using, such as ShapeShifter or PC-Task, are obviously not the full versions, so you're going to have to buy the full product. As such, you'd be paying £20 for a demo.



If you know you're only after one type of emulator, you'd do better to get the unregistered version/demo from a PD Library, then get the full product. But if you want to play around on different systems, or want a reference disc for your BBS/PD house, this disc is the definitive collection of emulators. Remember, as with all PD programs, they are constantly being updated – for instance, the ShapeShifter program has already been updated since this CD was cut.

Emulators Unlimited

Price: £19.99
Supplier: Epic Marketing
Contact: 01793 490988
Verdict: 75%

Image Library

Yes, it's another collection of clipart and images. This CD is obviously designed for PC users, because all the images are in PCX format. Using an Amiga is no problem, because there are plenty of programs that can convert the image format for you – I used ADPro and the Shareware package Superview.

Image Library has 1,000 colour images, as well as another 6,000 black and white. A variety of topics are covered.



The individual pictures are named with meaningless numbers and letters, but don't despair, because the CD comes with a full, printed manual that shows each image and its code. 1,000 of the 7,000 images are in colour, the rest are black and white. It's a reasonable selction of clipart, some useful, some worthy of burning. Quite a lot of the clipart is cartoony, but some are quite good and the rest are pretty decent images too. ■

Image Library

Price: £21
Supplier: Public Domain Software Library
Contact: 01892 663298
Verdict: 83%

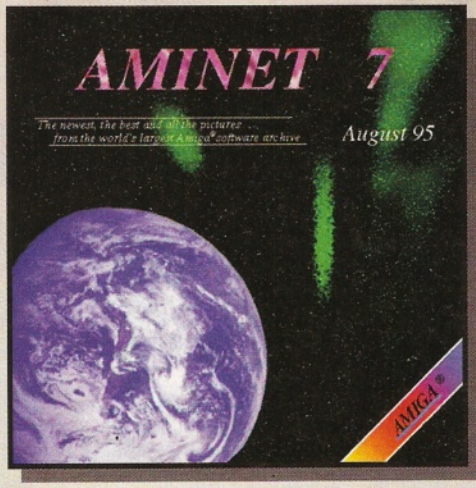


Aminet Set 1

Aminet is the world's largest collection of freely distributable Amiga software. Up to 10,000 users access the vast archives every day and countless programmers publish directly via Aminet. A wide variety of programs is included: applications, games, demos, pictures, mods, animations, developer material, networking software, programming languages, and more. Until recently, access to Aminet was restricted to international network users. Only 3 years after its inception, Aminet now holds the equivalent of more than 4,500 floppy disks of software. User friendly access software makes the aminet CD's a pleasure to use. Aminet Set 1, the first "complete" Aminet archive on CD, consists of approximately 4 gigabytes of software in 12,500 archives.

141MB	Development software
103MB	Utilities
134MB	Graphics software
337MB	Pictures & animations
87MB	Text software
39MB	Documents
336MB	Graphics & sound demos
160MB	Games
86MB	Communications
6MB	Hardware related
63MB	Business software
12MB	Disk/HD tools
109MB	Miscellaneous
358MB	Music modules
29MB	Music software

£29.95

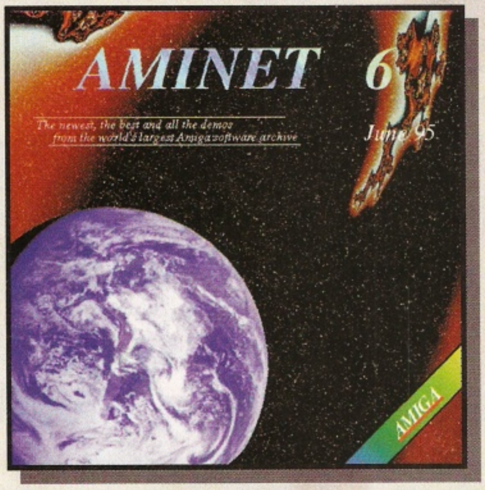


Aminet 7

Aminet CD 7, dated August 1995, contains more than 1 gigabyte (uncompressed) of software in thousands of archives. Since the release of Aminet 6 CD more than 500 MB new software has appeared. The current edition has a special focus on images. 10.000 images for DTP and multimedia were included.

25 MB	Business software
30 MB	Communications
50 MB	Graphics & sound demos
10 MB	Development software
1 MB	Disk/HD tools
15 MB	Documents
55 MB	Games
40 MB	Graphics software
1 MB	Hardware related
40 MB	Miscellaneous
110 MB	Music modules
10 MB	Music software
15 MB	Text software
20 MB	Utilities

£14.95



Aminet 6

Aminet CD 6, dated June 1995, with a focus on demos is still available in limited quantities. Get in contact with your dealer as soon as possible to preserve a copy of this famous CD-ROM.

55 MB	Business software
52 MB	Communications
500 MB	Graphics & sound demos
34 MB	Development software
4 MB	Disk/HD tools
25 MB	Documents
58 MB	Games
56 MB	Graphics software
30 MB	Top-downloads
58 MB	Miscellaneous
101 MB	Music modules
13 MB	Music software
14 MB	Text software
34 MB	Utilities

£14.95



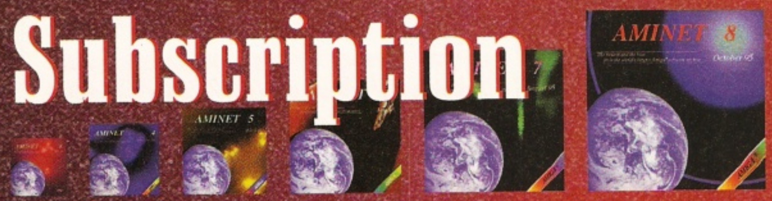
Aminet 8

An update to the world's best-selling Amiga CD-ROM-series has just been released. Aminet CD 8, dated October 1995, contains more than 1 gigabyte (uncompressed) of software in thousands of archives. Since the release of Aminet 7 CD more than 500 MB new software has appeared. The current edition has a special focus on modules. More than 1.000 were included. Many modules are of a very high-quality and feature 8 voices. The excellent user-interface has also experienced further improvements and we are proud to present you a new CD-ROM of superior quality for the Amiga.

80 MB	Business software
45 MB	Communications
60 MB	Graphics & sound demos
30 MB	Development software
5 MB	Disk/HD tools
20 MB	Documents
60 MB	Games
45 MB	Graphics software
30 MB	Top-downloads
40 MB	Miscellaneous
400 MB	Music modules
10 MB	Music software
10 MB	Text software
30 MB	Utilities

£14.95

Subscription



The Aminet CD-ROMs are published bimonthly which means that 6 new valuable issues are released each year. PDSoft is offering an inexpensive and reliable subscription service. Telephone: 01702 466 933. Get yours on the day of release and be sure that you won't miss a single issue.

ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-R



FrozenFish

The FrozenFish CD-ROM, August 1995, contains all 1.100 "Fish Disks", one lha archive per disk, with a product info file. There are also 102 MB animations and graphics utilities aswell as 74 MB pictures included. £19.95



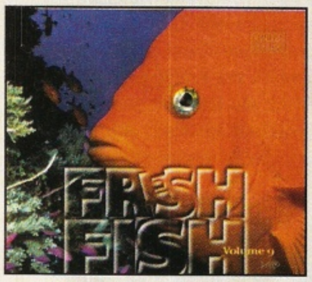
FantaSeas

Fantaseas is a Portfolio Photo CD containing almost 300 high quality underwater photographs. This two CD-set contains reef shots teeming with brilliantly colored fish, macro shots of various anemones detailed shots of World War II wracks, plus much more! Photo sites ecompass the world, ranging from the walls of Grand Cayman to Mexico's Sea of Cortez. Each photograph is available in the five standard Photo CD Image Pac resolutions. £44.95



CD-Write

What!?! You still can't write to your CDs? CD-ROMs have long been an essential part of Amiga computing. Many users already own a CD-ROM drive, and the number of software packages available on CD is increasing steadily. Until now, though, it was not possible to write to CDs. We have solved this problem with our new revolutionary product: Ralph Babel and Stefan Ossowski's Schatztruhe are proud to present what can be considered a marvel of technology: CD-Write enables you to virtually write to CDs with an ordinary CD-ROM drive. From now on, you will be able to write, delete, and modify data on your CDs. This product will take you into a new era, and you will be able to utilize CD-ROM technology to its fullest. £44.95



FreshFish 10

The FreshFish CD-ROM-series, produced directly by Fred Fish, provides Amiga users with hundreds of megabytes of the latest freely redistributable software. Published approximately every two months, each volume is a two CD set containing new submissions since the latest volume, as well as an ever growing selection of tools, libraries, documentation and other useful material that is updated with every release. £29.95



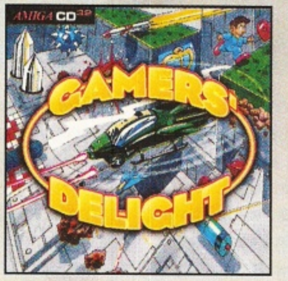
CDBoot 1.0

CDBoot is a fantastic new product that enables you to use almost any CD32 games on an A1200 or A4000 (with AT- or SCSI-CD-ROM drive and any filesystem). You can create a configuration file for each CD, containing information on the Joypad emulation. You can also save the highscore of each CD32 game. The usage and installation of CDBoot is very easy, also for beginners, due to the excellent English manual. Since the compatibility is very high, you can use 98% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga-Freaks, who would like to enter the world of CD32 games! £34.95



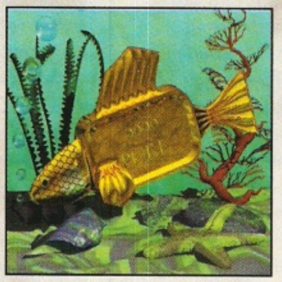
FreshFonts II

The FreshFonts II CD-ROM contains 632 megabytes of fonts for almost any computer system. Most of the fonts are freely distributable, except for the Thienen fonts, which are exclusive on this CD. Each of these fonts is included in four different formats: DMF, Agfa IntelliFont, Adobe and TrueType. There are 231 font families on this CD (each containing of up to 8 different styles). They are classified in seven categories: Deco (63 families), Non-Latin (33 families), Pictures (16 families), Sans Serif (29 families), Script (36 families), Serif (36 families), Thienen (19 families). £19.95



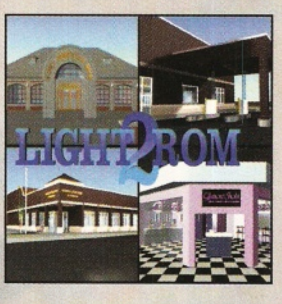
Gamers' Delight

This CD contains 40 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers' Delight will hold you captivated for hours and guarantees long-lasting pleasure. All games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive, CDTV or Amiga CD32 Console with 1 MB free memory and Joystick/Joypad. £29.95



GoldFish 2

Volume 2 of the GoldFish series contains a selection of software, animations, pictures and other material released on FreshFish CD-ROM's between October 1993 and November 1994, with most of the material updated to the latest available versions. All material is included in both archived (BBS-ready) and unarchived (ready-to-run) forms. £29.95



LIGHT ROM 2

The LIGHT ROM 2 CD contains almost 650 megabytes of 3D objects,;images, images equences, scene files, surface attributes, bump maps and textures in IFF and TARGA formats, DEMs, and Lightwave rela- ted text files. LIGHT ROM is an invaluable resource for Lightwave users, and as a bonus, includes material for Sculpt 3D and Imagine users. £44.95



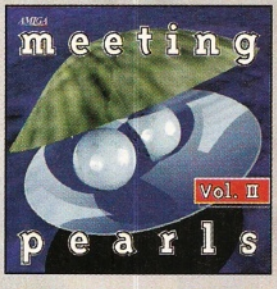
da capo

The da capo CD-ROM is a source for high-quality music, both for listening enjoyment and for samples to use in creating your own music. This is not just another random collection of modules. Many modules and samples are exclusively to da capo. Included are more than 1400 of the best available modules and 2000 high-qualioty samples. £27.95



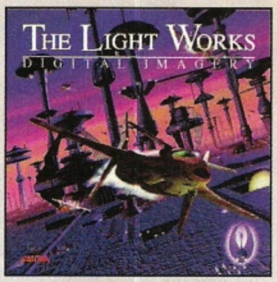
Gateway!

Gateway! offers NetBSD 1.0, a full featured UNIX-like operating system with both sources and binaries for the Amiga, i386, Sun 3, and other architectures. Go netsurfing with the large selection of supplied networking tools. Other supplied packages include a binary release of the X window system (X11R6) for the Amiga, with many additional clients, and packages such as perl, emacs, games, mail programs, and many megabytes of important text files such as RFCs and FAQs. A complete installation guide is available on the CD. There are also some AmigaDOS internet utilities, such as clients for AmiTCP and Envoy. £9.95



Meeting Pearls Vol. II

The Meeting Pearls Volume II contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 35 MB of selected html-pages - 50 MB graphics programs and data -15 MB games - 10 MB from "The Party '94" - 13 MB disk, hard disk - CD-ROM and SCSI tools - 19 MB various other tools - 11 MB educational software - 25 MB terminal programs - 25 MB animations, mainly from Eric Schwarz - 40 MB developer tools (e.g. pre-installed compiler (DICE, Oberon, Modula), Commodore-Includes, GUI-Tools) - 9 MB music programs - 10 MB midi programs - 27 MB pictures - 60 MB texts, FAQs, CD contents files, etc. - 40 MB linux for Amiga - 100 MB TeX installation (PasTeX incl. 600 dpi and fax fonts) - 38 MB movie data base - 50 MB archives for Psion - 18 MB modules - 50 MB NetBSD for Amiga, ... £9.95



The Light Works

Raytracing - A fascinating area of the computer graphics. Pictures from the computer, perfectly rendered, fascinate people all over the world. The Amiga was the first computer to be used for raytracing, and today it is still a leader, with many high quality programs. A real artist of raytracing is Tobias J. Richter from Cologne/Germany, whose detailed objects stun the people. Especially his space ships of famous science fiction films are used to demonstrate the capabilities of a raytracing program. The objects are highly detailed and extremly realistic due to the application of complex surface textures of the models. Until now it was difficult to acquire these objects in order to create ones own scenes or animations. £29.95



Texture Gallery

Texture Gallery is a 2 CD-ROM set containing over 1.3 gigabytes of textures designed for graphic artists. Included are hundreds of 24 bit textures in several different formats, including IFF, TARGA, JPEG, PICT, SGI, and TIFF. These textures are perfect for use with 3D programs like LightWave 3D and can be used to create bump maps. All of the textures are represented in thumbnails renderings for easy previewing. £44.95

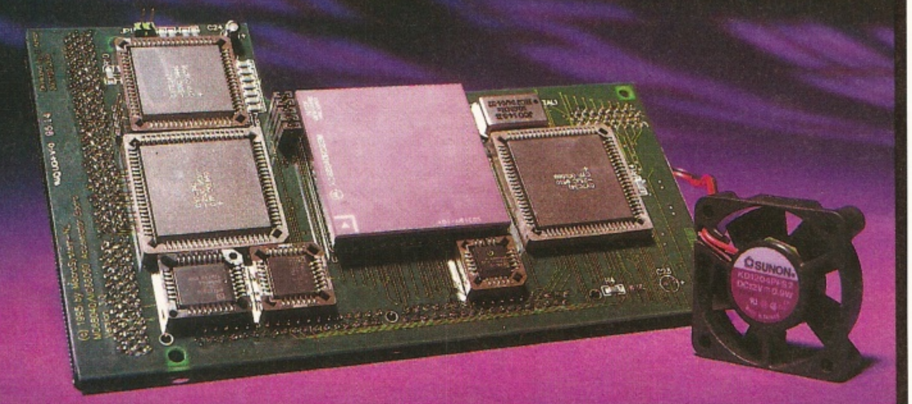
All products are available in your local Amiga-shop or through national mail-order-companies

SCHATZTRUHE

International Distributor:

GTI
Grenville Trading International GmbH
Zimmersmühlenweg 73
61440 Oberursel · Germany
Tel +49-6171-85937
Fax +49-6171-8302
EMail: Compuserve 100336,1245

Falcon 040



With the price of new A4000s, could an accelerated A1200 be the answer for power users? **David Taylor** *finds out...*

There's no point making any bones about it. The price of an A4000/040 is staggering, but with people wanting the power that the top-end processor provides, many still sell. What if there was a more viable alternative? The same power for half the price, offering the right level at the right price? A1200 owners no longer need to upgrade their computer to get the speed of the top-end Amiga.

After a quiet time in the Amiga peripheral world, there's been a new set of accelerators for A1200s released. The first 040 accelerator is here and the 060 versions are awaited with unprecedented anticipation. Until now 030s have been the top-end available for A1200s, and whilst they supplied extraordinary power, they are no match for the standard 040. The Falcon now brings that processor to the A1200.

> "It provides better **service** than an A4000, and means A1200 owners can upgrade for £500."

A tight fit

Fitting the board is slightly more tricky than with other accelerators. It barely scrapes in though the trapdoor and is a very tight fit. It is simplest if you also unscrew the casing and guide the board in from above, by lifting the keyboard up. You need to undo the casing anyway, so it's best to do it from the start.

With the board attached, position the fan that comes with the Falcon. This sits next to the disk drive and over the chips to ensure they are adequately ventilated. You fix the fan in place by screwing through from the bottom. The trapdoor cover needs to be cut so it can go back on, because a section of the board comes down too far for the door to go back on intact. This is easily done with a sharp DIY knife, although Power are having some custom doors made.

Technically, there is no software to install, but you must ensure that the 68040.library is in your libs: directory, or the Amiga will not be able to make use of the built-in FPU and you'll find that the board is not quite as fast as an A4000/040. The library comes with Workbench so you should already have it on your system, but if you find that the board is under-performing, that's probably the reason. Just dig out your original Workbench disks.



All you really have to do is turn your computer on and you've got the exact power of an A4000/040. Well, not exactly, SysInfo makes it out to be 0.98 the speed of the A4000, but don't believe everything SysInfo says, because it can't be 100 per cent accurate. In practical tests, the Falcon performed almost identically to the 040. The exception was rendering, where the Falcon outperformed the A4000 by nearly a third. This is probably down to the position of the extra memory in the SIMM slot that sticks out of the bottom. The Falcon can access this faster than the A4000 can get to its memory through the bus.

In practice, what all this means is that unless you've seen an 040 before, you're going to be blown away by the new speed of your Amiga. In general use – that is on Workbench and just toddling through your utilities – you'll be very glad of the extra speed. If you've already had a different, less powerful accelerator, then you might not notice that much difference. Most non-graphics applications don't benefit that much more than with an 030. If, however, you've come straight from the normal 020, you'll drool.

Graphics users and 3D enthusiasts are the people who need this card. As I said, rendering is faster than on an A4000/040, but conventional graphics packages benefit too. The Amiga decodes JPEGs faster, which is very welcome, because waiting for them is a pain in the proverbials. Don't expect them to appear instantaneously, though – just a damn sight faster.

The bottom line? Well, at the moment it's the fastest card I've seen. It provides better service than an A4000 and means A1200 owners can upgrade for £500 as opposed to £2,000 for a new A4000. The race is by no means over, with 060 cards coming.

If you're looking to get the fastest Amiga you can, then more speed will be available soon, but at a higher price. If this is the most your wallet can afford, then you're not really buying second best, because you're still talking about something that can outperform most other computers, and not just on the Amiga platform. With the amount of RAM you can add and with a SCSI module planned for this board, it doesn't mean an end to your expansion plans either. ■

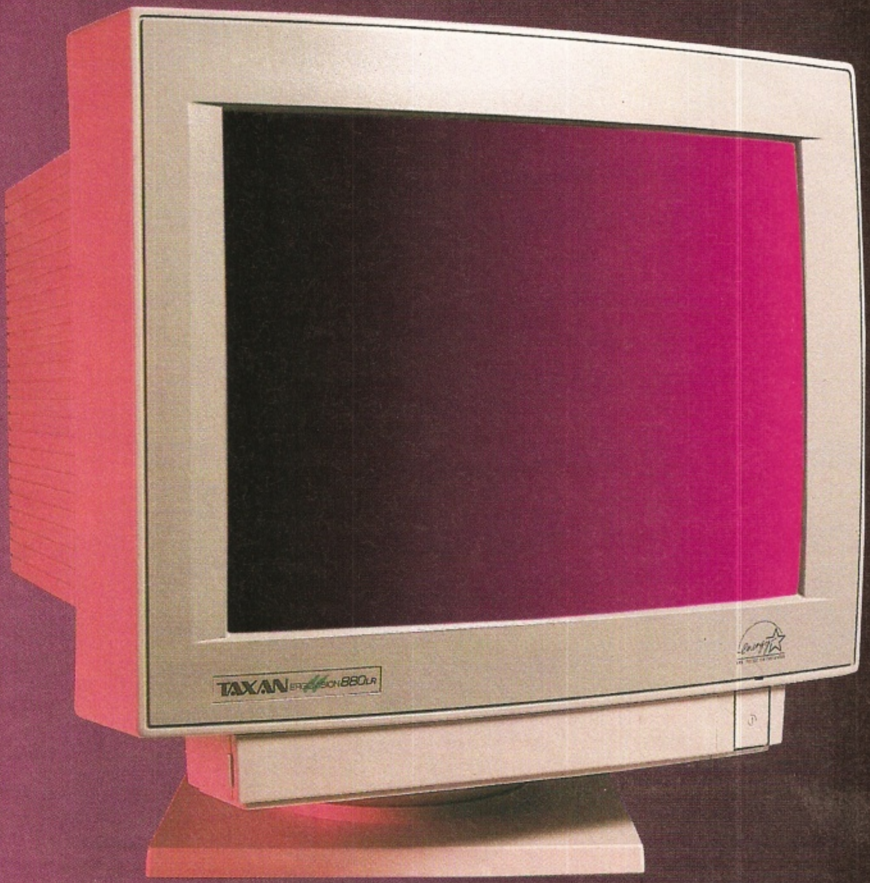
Falcon 040

Price: £499.95
Supplier: Power Computing
Contact: 01234 273000

Verdict: 91% — Amiga Shopper Star buy

Taxan monitor competition

If you read our monitor Supertest last month, you'll have seen the review of the Taxan 880LR monitor. Well, now we have one of these excellent monitors to give away!



The prize

We have yet another stunning competition for you to enter this month – Taxan have generously donated an 880LR monitor for us to give away. The Taxan 880LR is a stylish, 17-inch monitor with a crystal clear display, and it is worth £699 (RRP). We were so impressed we awarded it 92 per cent and a Star buy in our round up of monitors in Amiga Shopper November. (Turn to page 69 to order a back issue if you missed it!) All you have to do to enter this competition is study the four questions listed below, and send your answers in to Amiga Shopper by the closing date. We'll choose a winner at random and announce the name in the Talking Shop pages of our January 1996 issue.

For more information about Taxan's range of monitors, give them a call on ☎ 01344 867646.

The questions

1. What percentage score did the Taxan 880LR monitor receive in our monitor Supertest in issue 55?
2. Name the only Amiga with an S-VHS output.
3. What does horizontal frequency mean?
4. Complete this sentence in not more than 15 words: "I would like to win this Taxan 880LR monitor because ______________________"

How to enter

Write your answers to the questions above on a postcard (or the back of a sealed envelope) and send them in to:

Taxan Monitor Competition,
Amiga Shopper,
30 Monmouth Street,
Bath BA1 2BW.

The closing date for the competition is Tuesday, 14th November

Competition rules

1. All entries to this competition must be received by Tuesday, 14th November.
2. Only one entry per person is allowed.
3. Employees of Future Publishing or Taxan are not allowed to enter this competition.
4. The Editor's decision is final.

"We were so **impressed** we awarded it 92 per cent and a Star buy."



James McEwen sent these two images. The main picture is titled Is It 99% Safe? and took 80 hours to render. The 24-bit image was converted to HAM8 and imported to DPaint IV where the final touches were added. Remember, even if your picture doesn't win, you may still see yourself in lights as we try and use your efforts elsewhere in the mag. If you want to win £25, send your picture as a JPEG to: **David Taylor, Future Publishing, 30 Monmouth St, Bath BA1 2BW.**



There are those who say that there have been no newcomers to the Amiga for the time it has been away and that everyone is an expert user. Those people have never been here on reader call day or had to carry the Amiga Answers postbag up the stairs. The truth is that we all get caught out sometimes and with second-hand Amigas switching hands all the time, there are also some beginners to be looked after as well. Look no further – Amiga Answers is here to help...



Paul Overaa is our Operating Systems programming expert. He has written several books, including: Mastering Amiga Assembler, Mastering Amiga ARexx and Mastering Amiga C. His main interest is in program design and he is heavily into the music side of the Amiga. Paul's other interests are red wine, maths and wind-surfing!



Gary Whiteley is our expert on video and graphics. He regularly produces work for films and TV. Gary has also written books – amongst them is Amiga Desktop Video, published by Future Publishing. Gary also regularly reviews new products for Amiga Shopper – turn to page 34 to find out what he thinks about the latest version of 3D rendering package, Imagine.



Nick Harper is Amiga Shopper's production editor. He used to work for Europress Software, writing demos for both AMOS 3D and AMOS Compiler. Together with technical editor, Dave Taylor, Nick has again reviewed the mass of Public Domain software. Nick once received 94 per cent from ST Format for his Shareware game, Ozone, so he's quite qualified in these fields.



Larry Hickmott is our DTP and word processing expert. He produces his own DTP magazine called Em and has written several books on his favourite topic. He has recently finished a book called The Wordworth Companion for Digita and Future Publishing's books division. Larry has written both the word processing Supertest and DTP tutorial this month.

AMIGA SHOPPER

There's a real mixture of problem-solving this month. From MIDI and programming to configuring Directory Opus and sorting out Coverdisk glitches. We've got it all. And as one reader pointed out, it's always possible to learn a thing or two each month from other people's troubles. We don't know if that makes them feel any better, though.

MIDI timing

Music

I read that chart-topping Urban Shakedown are still, after three years, having to manually synchronise two Amigas running OctaMED together because using MIDI they get time delay problems. I heard that there is a version of Protracker that links through a null modem cable but there are no instructions in the program for doing this. I've also heard that OctaMED 6 has an ARexx port. I don't know much about ARexx, but is it possible to program OctaMED to go through a null modem cable instead of two MIDI interfaces? And if so is there anyone out there who can do this?

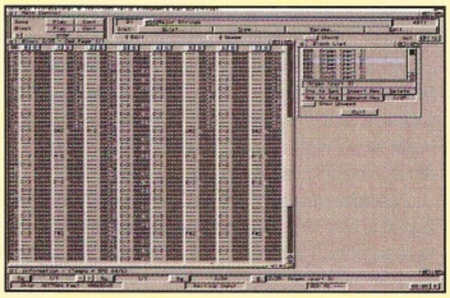
Adrian Webb
Cheshire

I don't use any twin-Amiga tracker schemes with my own music, so I'm not sure what timing problems the band you mention might have encountered. Most trackers were not designed for this sort of use although, since the latest version of OctaMED (version 6) can both generate MIDI clocks and be externally sync'd to them, I am a little surprised to hear of such timing difficulties. Unless of course they were talking about an earlier version of OctaMED.

I don't use Protracker either, but presumably, like OctaMED, it now has some MIDI capability. Your mention of null modem cables is doubtless based on the assumption that MIDI data takes a certain amount of time to pass through a MIDI interface. Presumably, you think that if you eliminate the two interfaces, you'll improve the timing.

I think the reason you've not found any details of direct machine connections using a null modem cable is that these sorts of connections have nothing to do with the software. When a program writes MIDI information it writes it to the Amiga's serial device (or the underlying hardware), and the software itself doesn't really care if the transmitted data is coming out of the serial port and going directly to another machine, or passing through a couple of MIDI interfaces on the way.

There's no 'reprogramming' involved in linking two machines together directly, and ARexx, incidentally, has no involvement at all. To link two Amigas for direct MIDI serial communications, all you'd need is a simple three-wire lead with a couple of 25-pin RS232 type D connectors. Link the earth pin 7 at each end of the cable but cross connect the data pins 2 and 3 (if you're not happy about doing this sort of thing yourself you'll probably find a local computer shop will make the lead for you). To be honest, whatever timing problems (if any) you have encountered, I doubt whether eliminating your MIDI interfaces will make any noticeable difference. ***Paul***



OctaMED 6 is the latest version of one of the Amiga's most popular music packages.

Answers contents

If you are looking for a particular problem, why not use this handy index, arranged by topic, to find the questions which concern you.

A sorry tale

Hardware

I have an Amiga 1200, second floppy drive, Vidi-Amiga 12RT, Rendale 8802 genlock, 2Mb Hawk RAM board and a 360Mb hard drive. Although this system worked perfectly, I wanted more speed and memory and so I took the plunge and bought a Viper 28MHz 030/4Mb RAM card from Gasteiner in London.

When the board arrived there were no installation instructions or user guide, but because my existing Hawk card had a very good manual I was able to adapt what I knew and fit the Viper card with no trouble, and it worked perfectly. However, I wrote to Mr Kettly at Gasteiner's Technical Department for a manual but I got no reply – and no manual.

A few weeks later I needed to put some titles on to a video, but as soon as I switched on the incoming video signal the Amiga crashed! Not being sure what the fault was I took the Viper card out and, to my surprise, the genlock then worked perfectly. So, as far as I could tell, the fault was being caused by the Viper card.

I wrote to Mr Kettly and again got no reply. Then I wrote to Gasteiner's MD, Mr Swallows. Again, no reply.

Next, I called Power Computing and was told there was nothing wrong with the Viper card, therefore it had to be the genlock.

Then I called Rendale's Technical Department, who confirmed that they knew about the problem between the Viper and the genlock and that they were in touch with Power Computing to see if a modification board was being prepared. They advised me that I would be put on a list for the modification board and that I should ring back in a few weeks.

Next, I wrote to Mr Ianire, MD of Power Computing, to see if he could supply and fit this modification board for me – regardless of cost. Again, no reply!

Some weeks later I called Rendale again. They told me that they were very sorry but Power Computing weren't replying to them either. They would keep my name on the list though, just in case.

So it looks like I'm stuck. Can you tell me whether there really *is* a modification card, or



The Rendale 8802 FMC genlock is the workhorse of the Amiga Desktop Video scene.

not? Do you know of anywhere which will take the Viper card in part-exchange for something which works with my Rendale genlock?

D. I. Domanski
Woolston, Cheshire

I'm very sorry to hear that you appear to be getting such shoddy treatment from firms who have sizeable stakes in the Amiga peripherals market. However, in the interests of all concerned I made contact with each of the companies you name, explained your problems as laid out in your letter, and listened to their side of the story. Here's a roundup of my conversations with them:

Gasteiner (the people who sold the Viper to you) were as helpful as possible, given that neither Mr Kettly (who was at the Amiga Technologies conference), nor Mr Swallows, were in the office on the days I rang. After finding that no installation instructions had been supplied with any of the stock of Vipers in their possession, Gasteiner have prepared their own installation document and will be sending you a copy. As far as getting a refund or exchange of the unit goes, you will have to get in touch with Shairmila Sagooni (a manager at Gasteiner) and put your case to her.

Power Computing (distributors of the Viper) said that in their experience the only genlocks which exhibit this problem are the Rendales, not GVP or other models (although a new ROM had been fitted to the GVP genlocks to forestall such problems). They suggested that it may be that you have a Mk1 Viper, which they acknowledge does have problems with the Rendale, though you don't mention the Viper model in your letter. Power aren't sure whether the Mk2 version will work with the 8802 genlock, but they are prepared to send one to Marcam so that they can test it out and perhaps pinpoint exactly where the problems are arising. Power also told me that they would write to you and that they may consider upgrading your Viper to a Mk2 version if necessary, though there would be some costs involved.

Marcam (makers of the Rendale genlocks) told me that the German designers of the Viper had admitted that there was a design fault with their accelerator and that they were going to design a daughterboard to cure the genlocking problem, though whether this was just for the Mk1 model wasn't clear. But that was six months ago and, as yet, no card has materialised. What's probably happening is that there is a clash between the genlock and the Viper over the Amiga's internal clock signals (in other words asynchronicity) and hence the incompatibility problems. Marcam could neither confirm nor deny that it was only their genlocks which had problems with the Viper, saying that people having problems with Rendales called them for advice, and that other genlock producers and distributors may have had similar complaints. Obviously, Marcam were not in a position to know this.

Marcam told me that they can usually fix these kinds of problem themselves, but it would require sending them your Amiga, accelerator and genlock and paying for the time it takes to modify the necessary components, which might take three or four hours. Whilst they are happy to provide this service they are still understandably sorry that a Viper owner should have to pay out more money to solve a design fault which probably shouldn't have happened in the first place.

So, unfortunately, I don't yet have a sensible solution to your problem. It may be that prospective buyers of accelerator cards, who wish to use them with genlocks, should make certain that they can return the unit if it doesn't work with their particular genlock. In addition, advertisers might think about adding a warning that some accelerators may be incompatible with certain genlocks, and that they would be pleased to provide advice if necessary before a purchase is made.

I'd advise you to keep in touch with all three companies concerned until you can reach an amicable arrangement with them. In the meantime, I'd be pleased to hear from other readers who may have experienced similar problems with their genlock and the Viper, Blizzard or indeed other accelerator cards, so that I can get some idea of the true extent of this problem. From what I gather from my conversations the only A1200 accelerator card which works consistently with genlocks is the Apollo, though perhaps readers may have a different opinion? ***Gary***

Protext Coverdisk problems

Software

It seems that a few people have been having problems with Protext. Unfortunately, nobody here has managed to replicate the problems and it seems to be happening on a minority of A1200s. Some of you have written in with ideas, so we thought we'd print them in the hope it can help the others out.

Firstly

1) Protext does NOT like opening its window on a screen >640 horizontal. My WB text overscan in PAL is 664 and so it won't run.
Solutions:
a) Boot from installed floppy.
b) Script thus:

```
Prefs/overscan protext.oscan.prefs use
Protext
Prefs/overscan ENV:overscan.prefs use
```

c) Use a Public Screen utility to open a screen 640x???, make this the Public Screen, run Protext, then change Public Screen back to Wb.
d) Hack Protext. Alert says "cannot open screen 704xXXX". 704 is 64 bigger than 640, so probably some type of overflow error.
e) Give in and buy latest Protext.
Pity about the 400 quid A1200, eh?

P. J. Johnson

Secondly

2) Protext 4.3 didn't run on my A1200 from hard drive. After a few hours grubbing around, I have managed to find the source of the problem – the screenmode. It would seem that Protext works quite happily from its own boot floppy or low-res/low-res laced, but a low-res Protext screen is not very practical. The answer seems to be to set the screen to the size it requests, e.g. 704x256, which works fine, but at the expense of not being able to see the whole screen.

Chris Cannon

Thirdly

3) The StartUp-Sequence on the program disk can be changed to make the dictionary disk load into RAM:. It's easy enough to change the preferences to take the name of the disks we used, but you might just want to relabel the decrunched disks to those of the original package to save yourself the trouble. The program disk's original name was: Protext-program-disc. The utils disk was: Protext-dict-util-disc.

Remember to adjust the StartUp-Sequence to note these changes. You can adjust the StartUp-Sequence in any text editor (including Protext), but make sure it is saved as fixed ASCII. (In Protext, this means formatting and fixing the text from the menus and then saving it as ASCII.) Relabelling the disks can be done easily on Workbench.

Dave

Hopefully, that should help out the minority who've had any problems. Thanks to the rest of you who just wrote in to say how useful Protext was proving. Dave

Code relocation

Coding

I have a couple of Assembly language-related questions: some programs are designed so that they are 100 per cent PC-relative, i.e. so that the program runs independent of absolute addresses and can therefore be placed anywhere in memory. Not all programs are PC-relative so how does the Amiga system manage to make them run at different locations?

Also I'm writing a small utility that will have to display a message on the Workbench title bar. It seems like all standard Workbench windows are the ones to thank for the title bar messages, but the default title of the Workbench screen is not a window, so there must be an internal function in the system to display these messages.

Krisstoffer Hansen
Holstebro, Denmark

You're right – on the Amiga programs get loaded into any area of free memory that is available at the time. In order to be truly relocatable all absolute address references within a program would need to be removed

and this is done using PC-relative addressing. It's not particularly hard to create this sort of code, although there are differences between the way you load data using PC-relative instructions, and the way you store data due to the fact that the 680x0 series doesn't allow PC-relative instructions to be used for specifying destination addresses. This means that while instructions containing absolute source addresses like this...

```
    lea     some_absolute_reference,a2
```

...are translated to PC-relative form like this...

```
    lea     some_absolute_reference(pc),a2
```

...an instruction containing an absolute destination address such as...

```
    move.l  d2,some_absolute_reference
```

...would need to be written as...

```
    lea     some_absolute_reference(pc),a2
    move.l  d2,(a2)
```

Normally, however, it's unnecessary to use PC-relative code when creating Assembler programs because the AmigaDOS scatter loader takes care of the job of modifying any absolute addresses used within a program. The scatter load routines are able to do this because of the internal arrangements used in Amiga object code files. These, and the load files that are eventually prepared by the linker, contain relocation information which enable absolute address translations to be performed as the program is loaded.

Programmers can therefore write code containing absolute addresses knowing that AmigaDOS will take care of all the relocation issues when the program is loaded and run!

As far as your other point goes – the only documented routine for setting window and screen titles is the Intuition library's SetWindowTitles() function which has this sort of use template...

```
void SetWindowTitles
(window, window_title_p,screen_title_p)
   a0          a1                a2
```

This function can certainly be used for displaying your messages (while your own program windows are active), but I'm afraid that you will not be able to use it in conjunction with Workbench's 'Last Message' menu option. This latter facility forms part of Workbench's internal error-handling mechanism and as such no library routine links are provided for application programmers to tap into! ***Paul***

Amiga reference manuals

Coding

What exactly are the ROM Kernel Manuals, what sort of material do they contain, how much are they, and what are their ISBN numbers?

Chris Jones
Brighton

These ROM Kernel Manuals are the three main volumes of a set of five Amiga technical reference manuals published by Addison Wesley. Here's the run down on all five:

Amiga reference manuals

Here is a list of the ISBN numbers and prices of all the manuals from Addison Wesley:

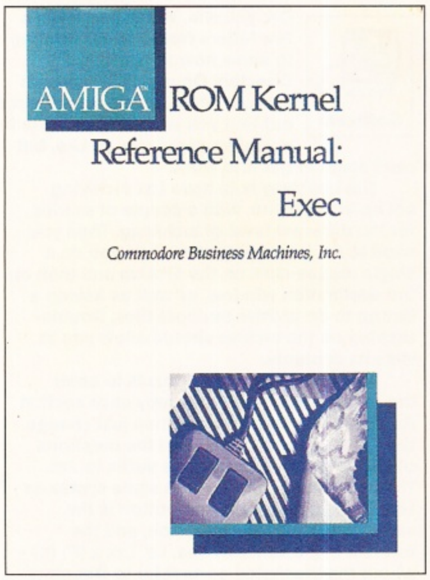
Title: Amiga ROM Kernel Reference Manual – Libraries
ISBN: 0-201-56774-1
Price: £34.95

Title: Amiga ROM Kernel Reference Manual – Devices
ISBN: 0-201-56775-X
Price: £25.95

Title: Amiga ROM Kernel Reference Manual – Includes & Autodocs
ISBN: 0-201-56773-3
Price: £34.95

Title: Amiga Hardware Reference Manual
ISBN: 0-201-56776-8
Price: £25.95

Title: Amiga User Interface Style Guide
ISBN: 0-201-57757-7
Price: £19.95



Amiga ROM Kernel Reference Manual – Includes & Autodocs: This volume, as the name suggests, contains details of all of the Amiga's include files and function autodocs. The first section provides the library summaries, i.e. details and use instructions for every routine in every Amiga system library.

Following the function details comes the devices section which contains straight summaries of the device calls, etc. This is followed by the disk/cia/potgo and misc resource summaries after which comes the very hefty C and Assembly language 'include' file listings. Other reference charts are provided, giving details of the Amiga library function offsets, Assembly language include file 'structure' prefixes, and structure offset reference details etc.

Amiga ROM Kernel Reference Manual – Libraries: This begins by providing a massive introduction to Intuition, the library which provides the Amiga's high-level programming interface. It covers the use of screens, windows, gadgets, menus etc. There are plenty of examples (mainly in C) and the material is, in general, relatively straightforward – this makes the early chapters of the Libraries volume some of the most accessible to the serious Amiga newcomer. Libraries is also the volume where you can get authoritative details of the Amiga's graphics facilities. As well as general introductions you'll find accounts of such things as the Amiga's display modes, image formation, viewport creation etc., and very detailed accounts of sprite handling, bobs, and the use of the system's animation facilities.

All of the main Exec topics are also dealt with, but because many of the issues involve difficult concepts this stuff is still, as it has always been, hard work when first encountered (even for experienced programmers). In addition to this there are chapters on layers, translator, the maths libraries, the Commodities Exchange library (used to create standardised custom input handlers), the IFFParse library and the Utility library which houses a variety of functions (such as Tag List operations and callback hooks).

Amiga ROM Kernel Reference Manual – Devices: This manual starts with a good general introduction to the Amiga's devices and their communications methods, followed by separate chapters which document the use of those all-important Amiga devices, namely the audio, clipboard, console, gameport, input, keyboard, narrator, parallel, printer, SCSI, serial, timer and trackdisk devices. There is a chapter on the low-level hardware control functions and on the Interchange File Format (IFF). The IFF sections are now quite comprehensive and include useful introductory notes, the EA IFF 85 document, and details of Form specifications. The graphics, music/sound-sampling, and all the other IFF areas are well covered, as are many third-party registered Form definitions. There are also good selections of code examples and reasonable levels of tutorial-style help.

Amiga Hardware Reference Manual: If you need to program the Amiga at a low level, in

OctaMED lost

I've seen the program OctaMED mentioned and believe that PD copies of this program are available. I want to buy a copy with documentation if possible. I've run up against so many blank walls my nose is broken. Can you give me the name of the stockist/publisher?

Mr B. Jones
Ilkley

I'm always glad to help out a fellow Yorkshireman. I can't believe you haven't managed to find this. Perhaps the easiest place to go is Seasoft who also sell the latest version. They stock the full OctaMED 4 on six disks with mods and samples to get you started and the full documentation for £5. Call Seasoft on ☎ 01903 850378. Nick

Configuring Directory Opus

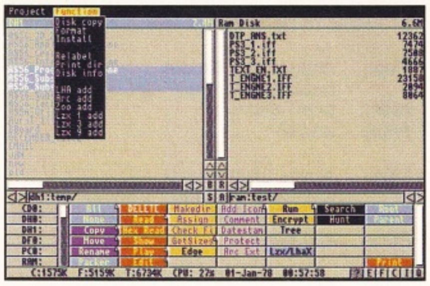


OK, you win. We've had quite a few letters from people wanting to know how to configure Directory Opus so that you can use Lzx. Most of you have figured out that you want it to perform in much the same way as Lha, but can't seem to get it to work.

The best way is to have Lzx archiving set up in the menu, with a couple of entries for the different level of archiving. Then you need to set it to de-archive when you do a single mouse-click on the archive and then on the destination window, as well as having a button to de-archive multiple files. Double-clicking on the archive should allow you to view its contents.

The easiest way to do this is to enter the configuration port and copy each section that concerns Lha. You can then just change the name of the function and the mentions of Lha to Lzx and the archive suffix to .lzx. This is because Lzx uses the same syntax as Lha. Setting up a separate button is the same as setting up any button, and the formula is the same as Lha, i.e. Lzx x {F} {d} – where the bracketed parts refer to Directory Opus syntax to denote doing the action to all the marked files and sending them to the destination window.

If you have registered Lzx, as you should have done if you are setting this up, then there



are several other advantages involved. The registered version allows further compression modes and also is much better at viewing and de-archiving Lha files than Lha itself. Around 10-35 per cent faster in fact.

To make life even easier for you, on the Coverdisk this month we've included two configurations for Directory Opus 4 (which seems to be the version you are using – if you are on version 5, you can always convert it – see page 10).

The two configs can be found in the Technical Zone and there is one for unregistered users who want to try it out and one for the registered users who can make use of the extra features. You must make sure that Lzx is in the C: directory for Directory Opus to find it. *Dave*

order to achieve things like fast vertical and horizontal smooth scrolling, then the Hardware Manual is the place to look. After a brief introduction this volume dives straight in with a look at the Amiga's co-processor unit, its instruction set, and its use. This sets the scene for a discussion of the playfield hardware and its relationship to the Amiga's display facilities.

The Amiga's sprite hardware, audio hardware, and the blitter chip all get a similar detailed treatment with the last two chapters being used to describe the remaining aspects of the Amiga's system control and interface hardware.

Amiga User Style Interface Guide: This volume, as the title suggests, is more about user interface issues than coding. There's basic advice on Intuition style and consistency together with notes on Workbench, Shell, ARexx, the clipboard IFF data sharing scheme and related issues.

It's a subject area which is probably of most interest to commercial developers who wish to ensure that their products follow established guidelines, although there's no doubt that all Amiga programmers would benefit by knowing something about these style-related issues.

Now for the bad news: The RKM's (which are currently in their third edition) are now out of date in many respects since they document Release 2 of the Amiga's Operating System. Worse than that there seems to be no plans to update them at the moment, although I'm sure this is something which Amiga Technologies will get around to. Even in their present form, however, they're still worth their weight in gold to the serious coder.

The most up to date system information, incidentally, is that provided in the disk-based 'autodocs' which you get when you purchase the official Amiga Include files. Most programmers therefore tend to use the Addison Wesley manuals in conjunction with these docs files. You'll find prices and ISBNs for all the above-mentioned manuals in the accompanying boxout (see page 49). ***Paul***

The question of upgrading



I have just bought a Canon BJ10 printer. This printer is not named within the Amiga's Printer preferences, so although selecting EpsonQ allows the computer and printer to talk to each other, the only fonts I can use in High Quality are those from the printer. Canon have now sent me a printer driver but it requires Workbench 2. What does this mean and what is involved in fitting a new Workbench? If I use the Amiga fonts, the printer always sees them as a graphic.

Mr M. Dickinson
Oxon

First of all, I don't have a BJ10 or a 1.3 Amiga, so I can't work through a solution, but what I can do is explain a bit about why you are having trouble, to help you understand it more.

The first thing I want to look at is your Workbench. Version 1.3 is so old now, it's a wonder anything works with it. As new Workbenchs are introduced, they come packaged with, among other things, new system libraries which programmers can use to design fancy interfaces. In the case of CanonDisk, it's not so much the printer driver that requires Workbench 2, but the CanonPrefs program that comes with it. I believe it can be controlled through the CLI (Command Line), but that's awfully involved.

To upgrade your Amiga, you need to install what is known as a ROM inside your Amiga which you would get along with a new set of Workbench disks. You may want to get someone to do this for you. The latest upgrade kit is Workbench 3.1 but to be honest, I'd consider a new Amiga if I were you. Not only will it run quicker, but you will have more colours to play with, more memory and you'll also find your machine compatible with software which is made to run on the latest Amigas. This same software will probably not run at all on the older Amigas.

So, if finances permit it, bite the bullet and go for a new Amiga Magic pack. After all, upgrading is going to cost you the best part of £100, so why not go the whole way and get a new machine? You'll then be able to leave those Amiga bitmap fonts behind and use CompuGraphic outline fonts with a program like Wordworth 4SE and get superb jaggy-free output.

If you want to make better use of the fonts in your printer, by the way, why not try using the Amiga Shopper Coverdisk with Protext on it (AS53 and AS54). I'm sure there's a Canon driver on there and Protext is the one program that will let you choose the internal fonts for a printer, giving you variety as well as quality. ***Larry***

Hisoft BASIC 2

I have seen Amiga Shopper giving code support to AMOS Pro and Blitz and I wonder whether there is any chance of getting similar help with HiSoft BASIC 2? I need an example to open a gadget, a modified one that includes two gadgets, and details of how mouse buttons are read. The examples which come with the package do show how these things are done, but because they deal with many things in each example I'm not able to tell what each of the various sections of example code actually do!

J Aulsebrook
Hatfield, Herts

There are some quite good examples provided with HiSoft BASIC 2 but, as you've seen, they are not particularly easy for most BASIC programmers to understand. I'm afraid the bad news is that it's not easy to give you a simple example as such – the reason so many things are done in the HiSoft gadget example (which contains about six pages of code) is that all the various steps are necessary to produce a program that works.

Once the Gadtools library is open, Gadtool gadgets, for example, require a preliminary 'context creation' stage (which essentially initialises a gadget list maintained by Gadtools), gadget attribute values need to be placed in a NewGadget structure, and calls need to be made to the Gadtools CreateGadgetA() function. IDCMP event handling, which you use for detecting mouse button presses, similarly has to be done via relatively low-level Exec function library calls.

All this stuff involving structure creation, poking of suitable values at the appropriate

structure offsets, looking at results using the various HiSoft peek functions (PEEKL() and so on) is actually mirrored on the sorts of things that C and Assembler programmers have to do (HiSoft BASIC 2 uses a system of header files that contain system constants equivalent to those found in the Amiga's official Include files). To be honest, none of this is likely to make sense unless you appreciate the underlying purpose of the function calls, understand what parameters need to be passed to the functions, appreciate what system structures are used with various routines, and how HiSoft BASIC expects data to be placed into and retrieved from these structures.

The bottom line is that it would require a series of tutorials to explain, in suitable detail, the purpose of the HiSoft BASIC 2 header files and show how they are used to create gadget-based program interfaces.

All I can say is that if Amiga Shopper gets enough people asking for a series like this then the chances are that, at some future date, you'll see one appear. Until then I'm afraid all I can suggest is that you persevere with the examples that come with the package! ***Paul***

DICE magic number

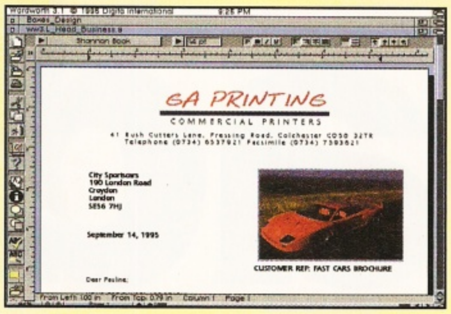
Coding

When I type the command 'assign' while using DICE there is a number which appears under the devices section. Is this my registration number? If not, what is it? Also, how can I make my programs detach from the CLI?

Chris Jones
Brighton

I checked my system and sure enough a strange number does appear in the device listings. My copy showed DICE07cd1452. To be honest I'm not sure what this represents but it's certainly not a user registration number. Since it appears when DICE's dme editor is running I suppose that it may be some sort of custom device that the DICE editor sets up to provide communications between the editor and other components of the package.

Programs that run from the Shell/CLI, as you doubtless know, do not run as independent entities but run under (i.e. as part of) the associated CLI process (basically, the entry point is jumped to via a JSR instruction). There is a technique called SegList splitting that has been used to automatically detach (and therefore install code permanently into the system) – the idea is that you deliberately clear one of the link fields in the segment list, and by so doing prevent the code from being unloaded. Having said that, the only recommended, system-compatible way of starting programs in the background is to use the AmigaDOS 'Run' command. It is this that you should use in general! ***Paul***



Version 3.1 of Wordworth is far far better than version 2 and well recommended.

Wordworth and the A500 Plus

Software

At the moment I own Wordworth 2 which has been very faithful to me, but I have been most impressed with the features available in Wordworth 3.1, primarily the capability to import colour pictures which can't be done in Wordworth 2. Up to now, I thought that Wordworth 3.1 would only run on an Amiga 1200, but it seems I am mistaken. Is this correct?

Tim Faulkng
Manchester

You're in luck. Because you have Workbench 2 on your Amiga, 5Mb of memory and a hard drive, you can indeed install Wordworth 3.1. Look out for an upgrade to Wordworth 3.1, that I'm told by Digita, will knock your socks off. Those using Wordworth 2, will be especially impressed. ***Larry*** ■

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☐ **A1200** ☐ **A1500** ☐ **A2000** ☐ **A3000**
☐ **A4000**

Approximate age of machine: ______________

Kickstart version (displayed at the "insert Workbench" prompt)

☐ **1.2** ☐ **1.3** ☐ **2.x** ☐ **3.x**

Workbench revision (written on the Workbench disk)

☐ **1.2** ☐ **1.3** ☐ **1.3.2** ☐ **2.04/2.05**
☐ **2.1** ☐ **3.0**

PCB revision (if known). Do not take your machine apart just to look for this! ______________

Total memory fitted (see AVAIL in Shell for Workbench 1.3) ______

Chip memory available (see AVAIL in Shell) ______________

Agnus chip (if known) ______________

Extra drive #1 (3.5in/5.25in) as DF : Manufacturer ______________

Extra drive #2 (3.5in/5.25in) as DF : Manufacturer ______________

Hard disk: ______________ **Mb as DH** ______________ **:**

Manufacturer ______________

Extra RAM fitted – type, size in Mb and manufacturer ______________

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____

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Tools of the trade



A full colour, 24-bit image of Babylon 5's interior. This is the sort of quality delivered by an Abekus and, to a slightly lesser extent, a PAR card.

Mojo's *back with the second installment of his 3D tutorial and he's determined to make you spend your money.*

Last month, we covered everything you need to know to put together an animation workstation. I'd even stake my reputation by betting that many of you have spent thousands of pounds on new hardware and software. Perhaps even a daring few have cranked out some eye-popping animation frames. But, the question I'm sure is now on everyone's mind is, "Now what?"

Now what, indeed. In case you haven't figured it out yet, there is no simple and cheap way of *viewing* animations once they have been created. Sure, you can render frames until the cows come home, but looking at stills can only get you so far in the world of animation. You want movement! You may also have noticed the lack of a 'play my animation' button in your 3D software. Unfortunately, getting all these little pictures to play back at the rate of 30 per second isn't easy; it requires even more hardware (yikes!), or a willingness to sacrifice quality. The 3D software makers know this and enjoy watching the look on your face when you discover that these so-called animation programs actually do nothing of the sort.

> "There is no **simple** and cheap way of viewing animations."

Hang on a minute!

I know, you're all mad at me. Only last month I told you to spend all your money on fancy new gear and now I want you to spend even more. All kidding aside, there is a good reason why your souped-up new Mhz hotrod can't show your brilliant new animations in all their glory.

The average rendered frame is close to 1Mb in size. It takes 30 of them to create just *one second* of animation – or almost 30Mb of space. This means a one-minute animation takes up a whopping 1.8Gb of virtual film! Think about how long your paint program takes to load one image, and you can see the vast amount of computing power it would take to continuously load and display 30 of these images each second.

So, without a £1 million computer, how can this be achieved? Well, these super-machines are actually only about £20,000 or £30,000 now, so you can either save your money and get one, or look into one of the 'hacks' that some clever people have come up with over the years to get around this problem...

The single life

For many years, there was only one way to get your animation frames on to video tape – one at a time. Since they couldn't be played back at 30 frames per second, it was thought that you could simply display a frame, record it on to one frame of video, display the second frame, advance the VTR one notch, record the next frame, and on and on, until all your frames were transferred to video.

Then you could rewind the tape, press Play on the video machine and magically see all your frames zip by at the correct speed – like the stop-motion animation technique used in special effects to make clay sculptures do all sorts of cute things. Sound tedious and boring? Absolutely. Low tech and cheap? Not a chance.

In fact, this was a very expensive process. It took some pretty fancy hardware to make a VTR record one frame at a time. Not only that, it had to be controlled by the computer, so it would know when the next image was up in order to start recording. On top of this, since we all know that leaving a video recorder in pause mode for too long is generally regarded as a bad move, expensive video machines that could handle this kind of abuse were necessary.

In the end, you needed a single-frame controller, a single-frame VTR and the patience of a saint to get your animation on to video. In many cases this could cost more than the computer itself, and a minor mistake would result in a frame or two being improperly 'laid off' to the tape – resulting in glitches in the animation and requiring you to start the process all over again (or embark on video surgery and insert the proper frames in exactly the right place).

As you can imagine, no one enjoyed this process. It was slow, barbaric and unreliable. However, this process is still the way many people finish their animation. People who own this equipment have had a lot of good use from it and are not keen on getting rid of it. In fact, many low-end studios are probably single-framing an animation as you read this, unaware of the recent advances in computer technology.

Life-saving ham

All the other methods of animation playback involve, in one way or another, viewing it in real-time on the computer. Yes, I know I just said it took really expensive computers – however, that's only if you require *perfect* image quality.

The simplest and, above all, *cheapest* way to view your animation is to convert your finished Amiga frames into an Amiga anim. The anim format has been with the Amiga since the days of Deluxe Paint 3, when our beloved machine first started developing sophisticated animation software. This format takes all your frames (which must be in an Amiga resolution and colour mode) and combines them into one huge file, capable of playing back in real-time without any extra equipment. Playback speed, however, is determined by three very important factors: colour, resolution and movement.

High resolution images are, of course, big files, and so take a lot of power to manipulate. Likewise, high numbers of colours also create more image data and, in turn, add to the file size. The movement factor has to do with an anim technique known as compression. You may already be familiar with this through utilities such as LHArc, which examine computer files and make them smaller by removing redundant, or unnecessary, data; they compress the files.

Anims use a format known as delta compression. This technique examines the data in each animation frame and creates a file which stores only the *difference* between frames, resulting in smaller anim sizes (you'll notice that anim file sizes are never the sum total of all frame sizes). This means that anim playback is also dependant on the amount of movement in the scene (which, to the computer, simply adds up to the differences between frames). A lot of full-screen motion (such as panning the camera) will result in large anim files and slow playback. Likewise, by locking off the camera and having simply the elements in the frame moving, higher frame rates can be achieved.

The lesson? Low resolution, few colours and little movement insures fast playback speeds. It also guarantees a dull animation! The key is to try and balance these elements. High-res is usually right out, unless you're animating something like a bowl of fruit with a small fly crawling along the edge. In other words, unless there actually is no animation, the Amiga can't keep up with files this big. I suggest sticking to low-res HAM for Amiga anims, which can offer surprisingly good results.

In addition, time has improved the anim format. What was anim5 became anim7 not too long ago, and with it came great improvements. The anim7 format is quite good, capable of displaying full-screen, low-res HAM anims at close to 30 frames per second (even with full-screen motion). In fact, for several years this is how we tested shots on Babylon 5 (see boxout) before we all got rich and moved up the ladder to the next rung in animation playback.

If it's good enough for Babylon...

Many people underestimate the potential of low-res, HAM animation. In our decidedly 24-bit world, HAM may not sound like much, but, used correctly, it can prove quite effective.

It is important to start with a good anim compiler. The best, to my knowledge, is the Shareware utility Rend 24, available on-line just about everywhere. Using an intuitive, point-and-click interface, you simply tell it where your 24-bit (or other) frames are located, what resolution and colour depth you want your anim to be, and sit back – it will quickly convert your frames and create an anim file for you!

There are several other options available (all are well documented). However, the most important by far is the dithering toggle. When this switch is set to On, banding disappears and 24-bit frames are beautifully converted, with the colours remaining quite accurate. If you're using HAM8, images will look even more stunning. Although LightWave can create internal HAM animations, Rend 24 converts with better (and more tailorable) results. Also suggested is to keep your images to non-overscan resolutions (i.e. 320x200), because this will greatly improve playback speed (that seemingly insignificant overscan border can actually add 25 per cent to your image).

The final key is to convert this anim into an anim7 file (again using readily-available public utilities). This increases playback speed dramatically and can be viewed with a utility such as Viewtek (a great little viewer which comes with the aforementioned anim7 tools).

This technique should yield you full-screen, dithered HAM animation with playback at (or close to) 30 frames per second. The dithering pattern adds almost a film-grain quality to your image and is actually quite pleasing (almost looking like old super-8).

Keep in mind that these anims are loaded into RAM before they are played (for speed), so your maximum anim size is dependant on how much memory you have. As always, the more the merrier!

Another boon to creating low-res anims is render time. If you know all you can compile are low-res anims, then all you need to create is low-res animation frames, thus shaving 75 per cent off your render times. Quadruple your render power with the click of a button! Another hint: make sure to turn on anti-aliasing. Despite the low resolution, anti-aliasing creates a noticeably better image and a much better-looking final animation.

At this point, you'll need a genlock or encoder device to put this animation on to videotape. These run all shapes and sizes and are needed to convert the Amiga's RGB signals into video (of course, all you A1200 users have these built in!).

DCTV owners may want to dust off their boxes and give them a new lease of life by using them with these techniques to get even more colours out of converted LightWave anims. In fact, using anim7, I suspect that eight-colour, non-overscan, hi-res anims (played through DCTV) might play back at acceptable rates. Experiment and see!

Par for the course

A few years ago, a company called DPS blew away the animation world when it introduced the Personal Animation Recorder, or PAR board (for the Amiga and PC). It did the impossible – it played 24-bit animation in *real-time* from the hard drive! Everyone rejoiced and those with the cash bought one.

The PAR board uses special hardware and software to take your anim frames and compile them into a real-time anim file. It plays back through the board and is output as video (yes, PAL or NTSC) via a BNC connector. Just hook it up to your VTR, load up your animation and press 'Play!' Although it is a very keen piece of hardware, It requires a *very* fast hard drive to keep up – so fast, in fact, that only a select few drives actually work with the PAR board (DPS keeps a list so check with them before you buy ☎ 01252 718300). They start in 500Mb sizes and work their way up, so plan to spend around £2,000 between the board and a new, dedicated hard drive.

The PAR's quality is very good – near-broadcast quality. It makes use of compression, and some image degradation is noticeable if you look hard enough for it. As with the Amiga, a lot of movement can affect playback, so various

▶ 56

The same image as before, reduced to low-res (320x200) in HAM8. A far cry from the original, but not bad.





Another version of the low-res image, this time in regular HAM. Notice the banding (hard lines between colours). Animated, this looks even worse!

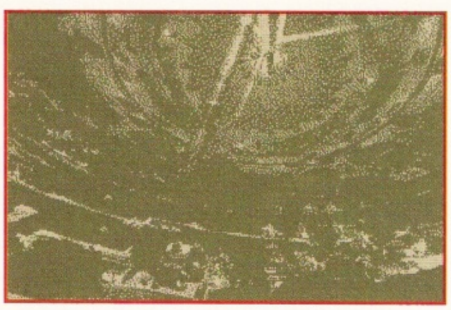


When dithering is turned on, the banding disappears in favour of smooth gradations between colours. While it may look a bit 'pixeley' as a still, in motion the pixels look like film grain.

'quality' modes are available to help you balance out image purity, playback speed and file size (compression artifacting exists even on high-end systems, which is why you will hear the occasional crackpot still swear by single-frame recording). Foundation Imaging has a PAR board installed in every animator's machine so shots can be previewed before they are turned in for final rendering. After they are rendered, the frames are transferred to...

Exabyte me

If single-frame recording represents the Stone Age of animation transfer, than Exabyte and Abekus come to us straight from NASA. No, these are not a couple of mysterious Greek gods, but, in fact, the keys to professional animation recording. An Abekus machine plays back perfect quality digital video and is standard



Just for the hell of it, here's what the image looks like in two colours! It may lack detail, but you can bet it will play back at 30 frames per second (even on a stock A500)!

equipment in post production houses around the world. These machines get their data frame by frame from Exabyte tape – a form of data back-up (similar to DAT back-up devices).

Unlike typical frame by frame techniques, however, the Abekus loads several frames per second and then plays it back in real-time with absolutely no quality loss. The animation can now be sent to whatever video deck your heart desires (post houses will certainly have at least one of everything). This is how Babylon 5 and most other productions transfer their animation to video tape. However, this method is by no means limited to professionals.

Anyone can go out and buy an Exabyte tape drive for a few hundred pounds. Then you just render your frames in the Abekus aspect ratio (LightWave supports this) and save them to tape in the Abekus format (Art Department and an ARexx script can do this). Afterwards, take the cassette to your closest post production facility, hand them your tape (and, of course, more money), and they will return to you a video cassette (any or all formats) containing your animation in the highest possible quality. It's that simple! Not to mention the fact that it entirely removes the burden of compiling and outputting the final animation yourself.

Cash flow problem?

'So,' you're wondering, 'All this information is well and good, but what is best for *me*?' That all depends what you are planning to do with your animation skills and how much money you can spare. HAM anims are good enough for a rough preview of your work and to show your friends, but nowhere close to the level needed to sell to a client. DCTV is better, but not much. Both of these methods are good for fun and even for making a demo reel, but in the commercial world they would get you laughed out of the door. Ha!

If you want to start hiring out your services as an animator, you must have access to a professional means of delivering your work on top-end video tape. While the PAR board offers high quality and ease of use at a good price, finding one in the street would still leave you with a major dilemma: recording the animation! In the professional world, neither VHS or S-VHS is taken very seriously, so you would still need a VTR that can adequately record the PAR's excellent output. While either 3/4-inch or Betacam would be fine, both are expensive and limit you to one delivery format. I feel that PAR works best as a preview device – because it only solves half the problem.

This leaves Abekus/Exabyte, the best solution for anyone considering a career in animation. The initial outlay is low (the Exabyte drive) and trips to the post house are only necessary when (theoretically) you are transferring an animation for a client (who is paying the bill). In addition, having a real production facility record your animation allows you to deliver the finished goods on whatever kind of tape your customer desires.

In the end, spending lots of money on expensive output devices and VTRs makes no sense since it limits your choices and, more importantly, you have no guarantee of making enough money to pay for it all! I suggest using HAM for previewing your work and investing in an Exabyte drive once you have secured your first real job and are sure this is the kind of work you want to be dedicated to.

Once you've made enough money, you can buy a PAR card for more accurate previews and the odd VHS tape you want to make. If you need to transfer an animation at full quality and don't want to bother with any of this, there are many services that can help. All they require are a full set of frames (provided on removable media or tape backup) and a check.

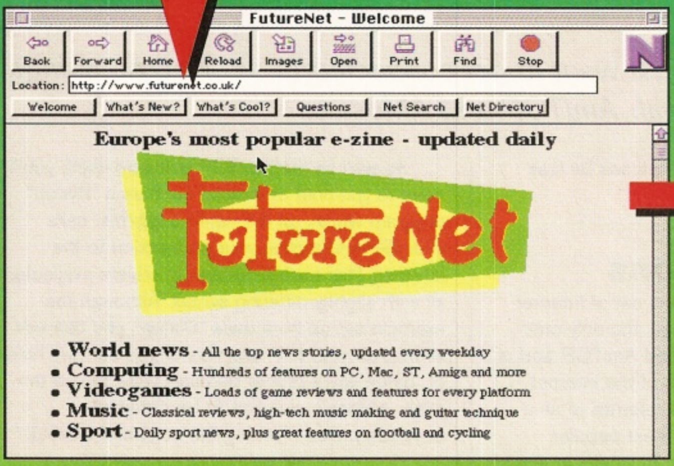
Money matters

With the information I've given you over the last two months you have all the data you need to make the right decisions and spend all your money. Animation can be a lot of fun, but the amount of fun you have is equal to the amount of money you can spare. ■

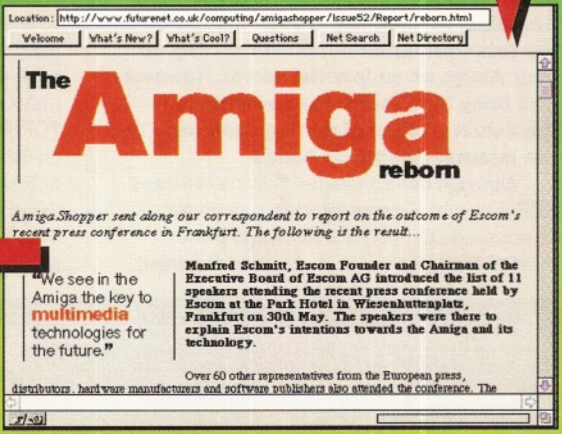
About the author

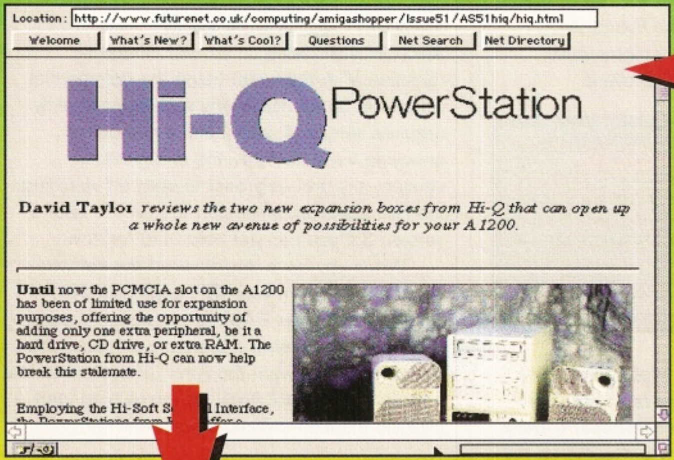
Mojo (Supervising Animator on Babylon 5) is absolutely insane and has only managed to keep his job at Foundation Imaging because of the assault rifle that he keeps beneath his desk. But he is good for a laugh and looks forward to the next season of Red Dwarf. But he refuses to write another word for the British press until someone sends him a piece of merchandise related to the program (Black Adder or Hitch Hiker's Guide To The Galaxy are acceptable alternatives). He can be reached via snail mail at Amiga Shopper, or over the Colossal Time Wasting Service at mojo@val.net

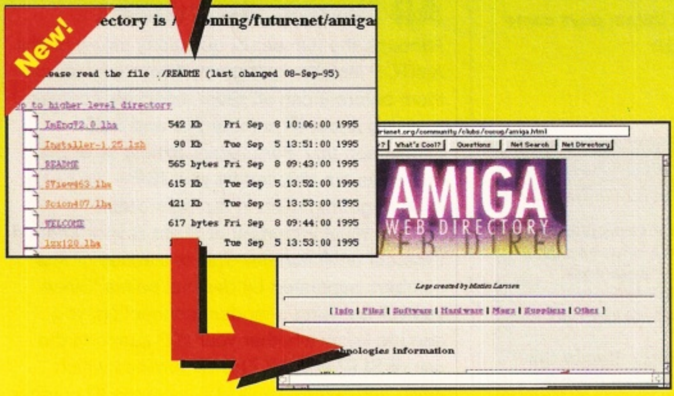
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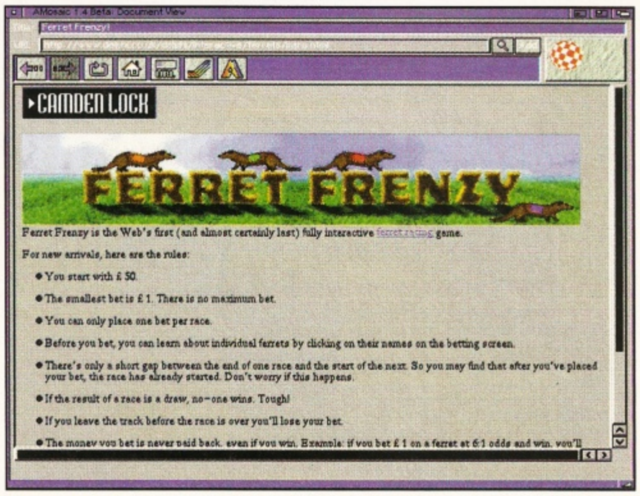
It's OK creating your own Web pages, but what if you just want to get connected to the Net, no strings attached? **Darren Irvine** *explains how to get started with AmiTCP and AMosaic.*

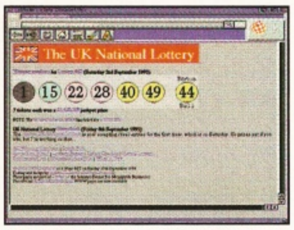
Over the past few months we've covered a wide variety of Internet-related topics in this Comms tutorial series, from a look at the various different applications available, to an in-depth examination of the technical requirements for setting up your Amiga as an Internet server. However, one thing that hasn't been addressed is the actual method of getting connected to the Internet using your Amiga.

Although certain Internet Service Providers (ISPs), notably Demon Internet, provide a customised start-up pack for Amiga users, most of them don't, and the method of getting things up and running can sometimes be less than obvious.

Stacks of options

Although there is more than one set of Internet software available for the Amiga, the only one really worth considering is called AmiTCP, and is a fully-featured implementation of the Internet protocol TCP/IP – sometimes referred to as a TCP/IP stack. The previously most popular choice, AmigaNOS will do the business in terms of E-mail and Usenet news, but isn't up to the job of running tools such as the World Wide Web browser, AMosaic, or other interactive programs like the Grapevine IRC client.





Above: The Web offers you a colourful way to check if you have won the National Lottery. Left: Live Ferret Racing on the Internet. What will those resourceful Delphi guys come up with next?

Jargon busting

Browser: **A piece of software used to navigate the World Wide Web by displaying Hypertext pages and allowing the user to select any of the links displayed.**
Domain name: **The text equivalent of an IP number. When you access an Internet site via its name, behind the scenes this name is translated into the IP number by a computer belonging to your ISP known as a Name Server.**
IP number: **The 32-bit number representing the "address" of a particular computer on the Internet. You will need to know the IP number of your own machine, as well as the machine belonging to your ISP that is to act as your gateway to the Internet.**
ISP: **Internet Service Provider. A company such as Demon, Internet or Atlas who basically sell access to the Internet. They have host machines that are on the Net full time, to which you dial in using a modem to connect to the Internet when you want.**
SLIP: **Serial Line Internet Protocol. One of the two main protocols for accessing the Internet over a telephone connection. The other is PPP – Point to Point Protocol.**
TCP/IP: **Transmission Control Protocol/ Internet Protocol. The basic mechanism by which all data is passed across the Internet. Also the name given to the sort of software required to get your computer on to the Net.**

As well as the AmiTCP software itself, you'll need to get hold of a dialer such as a "Dialup" program which, as the name suggests, calls your ISP and makes your connection to the Internet. There are a number of dialers available, all with slightly differing syntax. Although the example set-up here uses "Dialup", you can use whichever your ISP supplies or you can get hold of. Since you'll almost certainly want to use the Web, AMosaic also has to be obtained separately. See "Getting the software" boxout.

Getting started

AmiTCP is available as several different releases, with the latest being the commercial version 4. Since hardly any software currently requires version 4, and it has a number of annoying nags built into the unregistered version, it is probably best to start off installing the non-commercial version 2.2 (or the beta of version 3 if you can get hold of it) for now.

When you have downloaded the software, or obtained it from your ISP, unarchive the AmiTCP archive to RAM: or a temporary working directory. Now create a directory on your hard drive where you want the AmiTCP system to live – calling it "Amitcp". Now we're ready to start – click on the icon marked Install AmiTCP.

All those numbers

Although the number of questions asked by the AmiTCP installer isn't great, if you've never seen them before it can all seem extremely confusing – asking about IP number this and SLIP connection that. Fortunately, almost all of the questions are detailed by your ISP – it's just a case of getting them in the right order.

The most important of these is your Internet Protocol or IP number. This is a series of four numbers separated by decimal points. Since you will be using a modem connection, you need to know whether your ISP supports the use of SLIP or PPP. This determines which driver you select. You'll also have the IP number of the computer belonging to your ISP, which is the destination address for your system.

Odd names as well

The details that your ISP gives you include various names, again interspersed by decimal

points. You will probably have decided on a "Host" name for your computer itself. This is the part of your Internet address that goes in front of the ISP's own "Domain" name to form what is known as the "Fully Qualified Domain Name" or FQDN. In my case, my Host name is "plasma" and the Domain name is "TheGAP.com", giving a FQDN of "plasma.TheGAP.com". This, along with my default User name (which you will also have to supply in your set-up) forms my complete Internet E-mail address of:

darren@plasma.TheGAP.com

If your account is with Demon, your address will be something like:

username@someoldsystem.demon.co.uk

Similarly, other ISPs give you E-mail addresses based on your User name, your Host name, and their Domain name. Your ISP will also tell you the FQDNS of their "Name Server" and you should enter this when prompted.

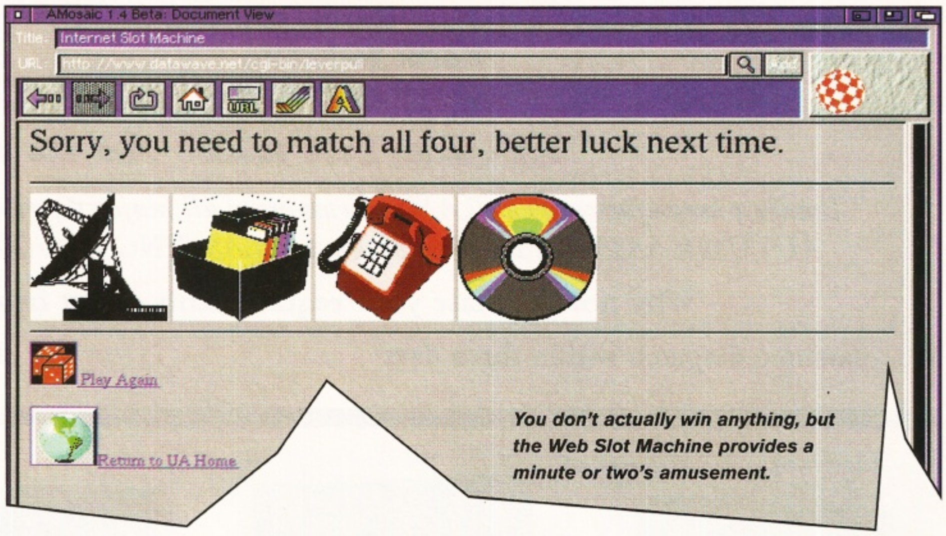
Once all these details have been entered, you have to decide where they will be stored – whether to store files representing the environment variables in ENV: or whether to make changes to your S:USER-STARTUP file. Personally, I prefer the latter, because it makes it easier for you to see exactly what is going on.

Getting connected

After installing AmiTCP, you should copy "Dialup" (or the dialer program you are using) to your C: directory, and create a script file to get things up and running. I have called mine Genesis, since that is the name of my ISP. The file contains the following:

```
echo "Calling GENESIS"
dialup pw="*********" lin="plasma-du"
pn="ATDT01232560551"
echo "Waiting for Connection"
wait 5
echo "Starting AmiTCP"
run >nil: nil: online rhslip.device 0
echo "Here we go...."
run startnet
```

One or two things probably need explaining here. The second line tells "Dialup" which phone number to call and what to use for a login name (lin) and password (pw) – these will be given to you by your ISP. I've rather cunningly blanked out my password here – you should type in your password rather than some asterisks. Obviously,

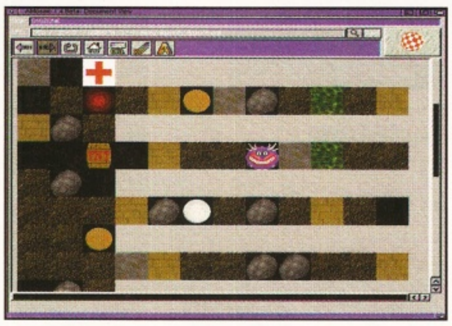


You don't actually win anything, but the Web Slot Machine provides a minute or two's amusement.

if you are using something other than "Dialup" you should substitute it in this line – check the documentation that comes with your dialer to find out the exact syntax to use.

The sixth line runs the AmiTCP program "online" and activates the driver which I'm using – in this case "rhslip". If you're using a different driver such as "ppp", substitute it here as appropriate. In the case of some dialer programs, this line will be integrated with line 2 – again check the appropriate documentation.

The last line is the one that does most of the work – and actually starts up the AmiTCP system. The script "Startnet" is created by the installer and resides in AMITCP:BIN. If you have any problems getting things up and running, it is



Digzone is a multiuser Web-based game. No-one who plays it really has much of a clue what it's all about.

always a good idea to have a look in here and make sure all the various IP numbers have been set up correctly by the installer – feel free to modify them by hand using an editor if they appear to be wrong.

What you've been waiting for

Once you manage to get AmiTCP up and running, actually installing the AMosaic Web browser is pretty simple. In the first instance, just create a directory and unarchive the program to the newly-created directory. Again, calling it something like "AMosaic" would be a neat idea. Now for the bad news – to get AMosaic to run you need to install a program which for some people is a curse – Magic User Interface or MUI.

MUI is a Shareware GUI extension system that makes it easy for programmers to create complex user interfaces with very little effort. For the user it offers the control of being able to customise the look and feel of any program. The downside is that MUI is fairly slow and also somewhat memory-intensive. Installing MUI is straightforward – extract the archive, click on the Install icon and wait for a while.

To actually get started using the Web, make your connection to the Internet and click on the AMosaic icon. Finding your way around the Web is fairly intuitive (if it weren't then what would be the point) and AMosaic's own features (such as the hotlist) are pretty simple to get to grips with.

In terms of the software that you use for E-mail and so on, this is largely a matter of personal choice – have a look at what's available and make up your own mind. That said, there will be two very interesting E-mail programs available shortly for the Amiga. One is a complete mailer from the guy responsible for the excellent MetaTool MIME (a multimedia E-mail extension protocol) program, and the other is the latest 1.2 version of AirMail – an extremely simple-to-set-up-and-use mail program. Both of these look set to knock the traditional competition (the dreaded Unix port, Elm) into touch.

Next month we'll take a closer look at these programs as well as what having installed AmiTCP can mean for your Amiga. ■

Getting the software

This unfortunately brings us to one of the Catch-22 situations concerning the set-up of AmiTCP – the software is widely available on the Internet, but you can't get hold of it until you're connected. And you can't get on the Internet until you have the software. And so on! Fortunately, most ISPs will be happy to download the software for you – if they aren't then you'd probably be better off taking your custom elsewhere. Alternatively, many Amiga-related BBSs will have the archives that you need.

If you do have another Internet account which you can use to get hold of the software, the addresses and paths you need are:

AmiTCP
src.doc.ic.ac.uk/pub/aminet/comm/tcp
Both versions 2.2 and 4 are available here

Dialup
src.doc.ic.ac.uk/pub/aminet/comm/net/Dialup 14.lha

AMosaic
max.physics.sunysb.edu/pub/amosaic

We have also included the software on Amiga Shopper's ftp site at FutureNet, Future Publishing's own Web site. To reach it type in:
http://www.futurenet.co.uk/computing/amigashopper.html

No 57 & 58, Top Floor
Glasshouses Mill
Nr Pateley Bridge
Harrogate
North Yorkshire
HG3 5QH

Marpet

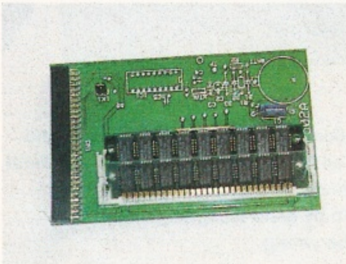
Tel: +44 (0) 1423 712600 Fax: +44 (0) 1423 712601

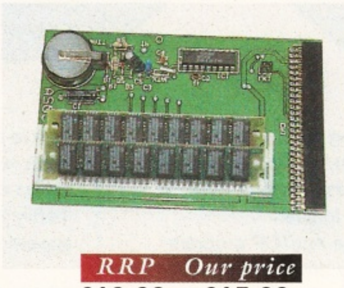
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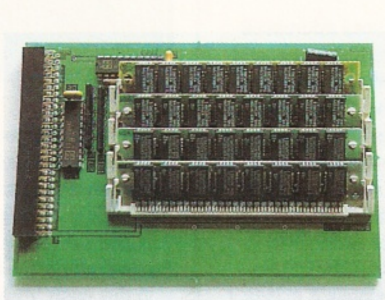
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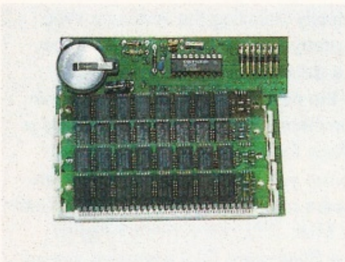


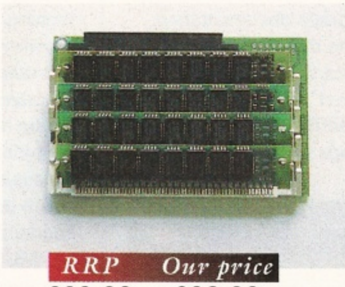
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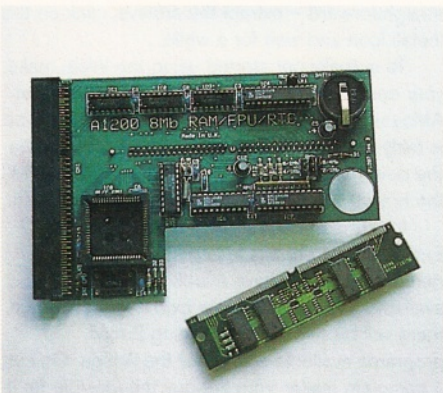
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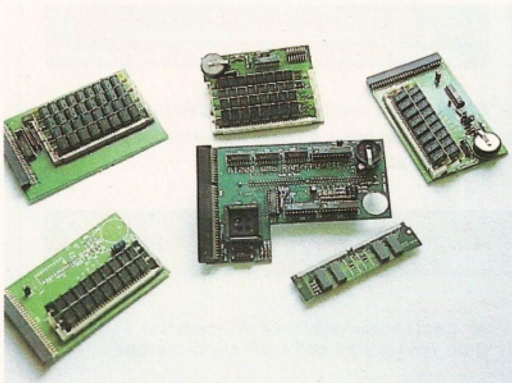




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What is DeskTop Publishing?

The introduction of personal computers has made a huge difference to the lives of publishers all over the world. Here to tell you why is the much-travelled, and a little dusty, **Larry Hickmott**.

Over the last 18 years, I have been very fortunate to see publishing at both ends of the spectrum. In 1978 I entered the world of traditional publishing. Which wasn't very glamorous, as I soon discovered. The company I worked for was based in a little Aussie town called Nowra and produced 13 local newspapers a week...

This was publishing in a manner very different to the way it is practiced today. The sort of publishing that makes me appreciate the power and flexibility we now have in the new-age publishing we call DTP. In traditional publishing, elements such as text and pictures are brought together and stuck down on paper as per a design sketched out beforehand.

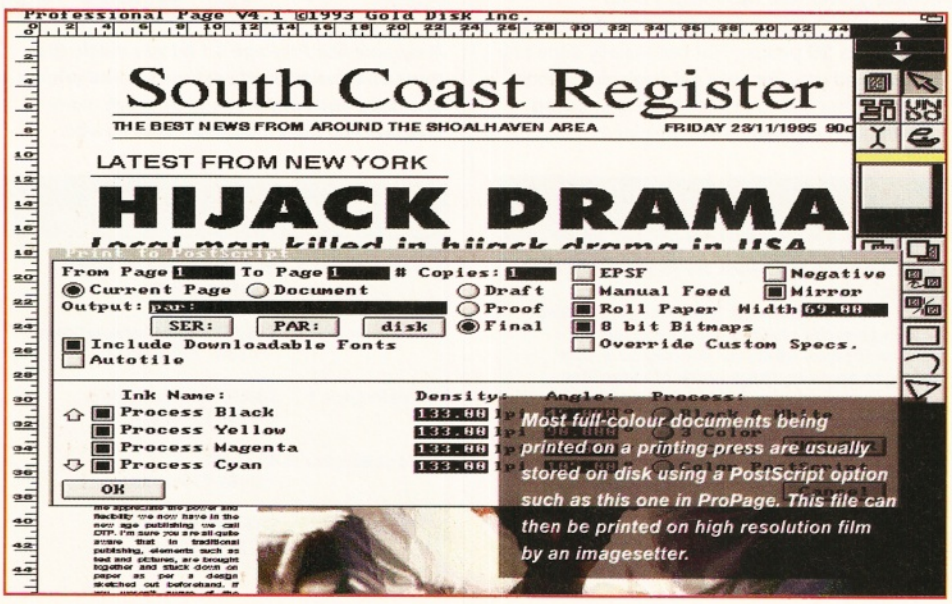
If, however, you dig a little deeper into the traditional processes, you start to see just how significant that copy of PageSetter or Final Writer running on your Amiga is.

At the newspaper I worked for, called the South Coast Register, five teams created copy that was destined for the paste-up tables. At the top of the tree was the editor, who created rough sketches of all the layouts on special gridded paper. The paste-up team used these sketches when making each of the pages.



In the bad old days, image processing was done in the dark room under the shadow of a red light and with the scent of chemicals clogging up the senses. These days, it's a much healthier activity with superb programs like ImageStudio running on your Amiga.

> "If changes in a layout were required, all **hell** would let loose."



Most full-colour documents being printed on a printing press are usually stored on disk using a PostScript option such as this one in ProPage. This file can then be printed on high resolution film by an imagesetter.

The graphic artists stuck together the adverts, and the typesetters were responsible for tapping out the words in long strips of paper called galleys. The fifth group, the one I was part of, was the laboratory. Here, photographs were printed, text was placed on clear film so it could be placed on top of pictures, and images were screened (half-tones) so the different shades of grey could be printed on a printing press.

Because each job was a skilled one, all five groups were vital in the production of a single newspaper. Yet, if changes in a layout were suddenly required, all hell would let loose as these same people scrambled to do their job in unison with each other before fast-approaching deadlines expired.

Chaos in office nightmare shock!

One example of such chaos was a front page story about a rather major disaster. Initially, the picture on the front page was printed so it would stretch across two columns. When the story suddenly took on a major new twist however, the image had to be enlarged two-fold.

This meant finding the picture in the files and doing what is known as a PMT (Photo Mechanical Transfer) to make a larger image to fit the new space – a process that ended up taking around 20 minutes.

The reasons for the extra work are two-fold. Firstly, paper doesn't stretch like a picture does on-screen, and so the image has to be enlarged by being re-photographed. This brings new problems, because when printing using traditional methods every picture is screened – that is, broken up into black dots and white space to simulate shades of grey.

This is because the printing press only uses black ink (for black and white work), just like your desktop printer. If the screened picture had been enlarged, the half-tone dither already applied to it would have been made noticeably bigger, resulting in a very ugly image. So, the unscreened version had to be found and both enlarged and screened again.

Nowadays, enlarging such an image on demand takes seconds rather than minutes. Taking our example of the famous disaster, if that had happened now, the new tools we have at our disposal would have let us take care of the changing situation very quickly. In most of

Want to know more?

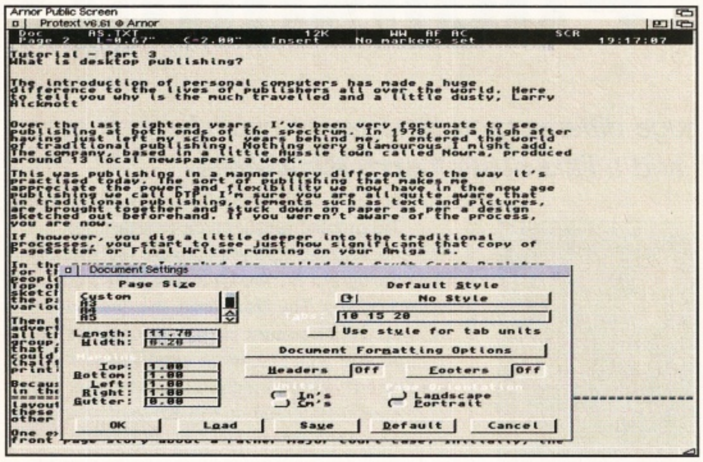
Don't forget these tutorials are written for your benefit. If you have any comments you would like to pass on to the author, you can E-mail him at the following address: larry@em.powernet.co.uk

Or write to Larry Hickmott, DTP Tutorials, 13 Gairloch Ave, Bletchley MK2 3DH.

Mixing the old with the new

Although the traditional side of publishing is a dying art, you can mix a bit of the new with the old when some documents require things you can't produce on your Amiga. Many people, for example, do not have access to scanners but want to include pictures in their documents.

In many cases you can do this by leaving a blank space for a photograph to be pasted in later. Just be sure to remember that in order for photographs to photocopy well, they do need to have a half-tone screen applied to them so that all the colours or shades of grey come out properly. Pictures that have already been scanned, for instance, will probably copy better than those that have not been scanned like an original photograph.



Nowadays, raw text is created in programs like Protext before being formatted in a DTP program like ProPage or PageStream.

the programs I can think of, that same image could have been made bigger by simply using the mouse pointer. What took 20 minutes then, would take no more than 20 seconds now.

It isn't just the changes in the way things are done that is significant. The cost of hardware now bears no relation to what it was in the late 1970s. Back then, the newspaper had hundreds of thousands of pounds worth of equipment just to produce a newspaper. Now you can do the same thing with just one or two pieces of software and an Amiga.

Most processes used to be hardware- or labour-based. The text was produced on a typesetting terminal and printed on a typesetting machine. Pictures were taken using normal film and then printed on paper through a half-tone screen, while the pages ended up under a process camera once the paste-up process was finished. The process camera was then used to transfer the page to film.

It's almost too easy

Many of these tasks are now done by software on the one piece of hardware – your Amiga. Text can be created in a word processor, whereas pictures can be taken from a number of sources, including CD-ROMs. These images can then be processed using eye-catching effects that were not possible 20 years ago – even in a commercial environment. The coming together of all these elements usually happens in a page layout program such as a word publisher like Wordworth, or a DTP program such as ProPage.

All these tools mean that publishing is no longer the domain of wealthy business people. Folk from all walks of life can now become involved in publishing, and for proof you have to look no further than LH Publishing, the business I set up a few years ago.

Those were the days

Gone are the endless days of sitting in a darkened room with only a red light for company. With just two Amigas I can accomplish all the tasks that previously needed as many as 20 people. Not necessarily done any better, mind you, because although all the tools are there, the skill to master them is acquired only through experience and training.

Which leads me to next month's installment of this DTP series, where I'll be giving you a few hints and tips on how to use your Amiga for producing professional-looking documents. I would like to tell you I have the perfect formula but unfortunately such an animal doesn't exist. What I can give you, however, is some valuable advice that I've gleaned from past masters – such as preparing your work before running your DTP software. If you don't think that's an important part of the publishing process, I suggest you read the final two paragraphs.

A week or so ago, I heard a story about an Amiga owner who was trying to create a newsletter using a well-known piece of DTP software. Despite having a total of 10Mb of RAM, this up and coming publisher's Amiga kept running out of memory. It seems he was trying to load a number of very large colour pictures on to a single page to print on a black and white printer.

With a little preparation, he could have avoided this situation. Next month we'll tell you how he did just that and a lot more to boot. Don't miss it. Your publishing future could depend on it! ■



Programs like ProPage 4.1 let you mimic the traditional methods of pasting text and graphics to a page and enable you to be much more creative with both these elements as well.

Jargon busting

DTP: DeskTop Publishing. A term used to describe the digital creation of documents from a desktop computer workstation.
Half-tone: Many images you'll use in documents contain various shades of grey. Because printing presses and desktop printers only use black inks, a method has to be used to simulate shades of grey using black. The result is a half-tone dither that mixes black dots with white space.
Paste-up: As the name implies, this involves sticking elements down on paper. Not just any paper though. Many publishers still using this method of document creation use special paper with a light blue grid, which isn't recorded when the pages are re-photographed to film.
PMT: Photo Mechanical Transfer. The process of using special photographic-type paper to transfer images from one source, such as a photo, to another, like a piece of clear film.
Process camera: An electronic device which is like a giant camera, enabling you to make high resolution copies of photographs and other artwork, as well as screening them so they can be reproduced on a printing press.
Typesetter: A machine used for creating long strips of text to be cut and pasted to paper. The forerunner of word processing machines and becoming extinct in many print shops.

Where to buy

Final Writer 4	**£74.95: Softwood Europe ☎ 01773 836781**
Wordworth 3.1	**£79.99: Digita International ☎ 01395 270273**
ProPage 4.1	**£49.95: LH Publishing ☎ 01908 370230**
PageStream 3	**£174.95: ☎ 0181 715 8866**
Protext 6.6	**£49.99 (Upgrade): ☎ 01487 773582**

AMOS in action part 1

Steve Bye *begins our new six-part tutorial series on AMOS this month. He's a bit of an expert on the subject because he's the editor of the disk mag, AMOSZine.*

Welcome to our brand new AMOS tutorial. We have had hundreds of queries asking for the return of a tutorial dedicated to this popular programming language, so we asked Steve Bye (who also runs F1 Licenceware) to write it for us. He promises to keep it interesting and to cater for all levels of user from beginner to expert. To start with this will be a six-part tutorial, but if you want more, we'll carry on.

Why use AMOS?

Even though the AMOS package is no longer being supported by Europress Software there are still many thousands of dedicated AMOS users out there. Why do these people continue to use a programming language that has no support from its creator or distributors? Because AMOS has the friendliest programming environment you will ever find; and because AMOS's instructions are based on an advanced version of BASIC, it means the instruction language is in plain English and so is easy to get to grips with. For example, if you want to hide the mouse pointer you just use "Hide", what could be simpler?



AMOS Classic doesn't have an Exec instruction, so we have to simulate it with this code.

You may be excused for thinking that because of AMOS's simplicity it is not very powerful, but just take a look at the commercial games Jet Strike, Valhalla, Base Jumpers and the Fun School series to see what can be done – you will be impressed. AMOS was originally designed for games development but there are plenty of AMOS programmers writing great utilities as well. AMOS does not directly support Intuition and AGA graphics, but there are extensions available to overcome this. Why spend years pulling your hair out to learn a complex low-level language when AMOS can do virtually anything you want?

I have seen many AMOS programmers go on to better things, people like Alan Carter (Team 17), Lee Bamber (Europress), Malcolm Lavery and Paul Overy (Anco) all started with AMOS and have done well for themselves, and so can you.

AMOS meets AmigaDOS

Few AMOS users realise the potential of interacting AMOS with AmigaDOS. As an example, I will show you how you can easily extract Lzx archives from within AMOS itself.

Lzx is a Shareware program. It's aim in life is to compress files down to a minimum size. Lzx and its derivatives are held in great esteem, especially in the Comms world, where good compression can save time, and therefore money. I won't go into how to use Lzx itself because you can read the documentation that comes with the program.

The programs Lzx and COPY must be in the C directory of the disk currently in DF0: You can of course change DF0: to whatever suits you, and you could substitute Lzx for Lha if you prefer because they use virtually the same syntax.

OK then, let's get AMOS to Copy Lzx from the C directory of DF0: to RAM:

```
Exec "copy df0:c/Lzx ram:"
```

The "Exec" string holds the same syntax that you would expect to type in when using the CLI in Workbench.

That's the first part done. We have copied the Lzx utility into the RAM disk, which means that Lzx is now stored in memory. I have done it this way to save a lot of possible disk swapping

AMOS extensions

• Craft: Black Legend, £19.99 ☎ 01438 840003
Offers 160 weird and wonderful commands including fractals and turtle-like graphics.
• Dump Extension: Alex Grant, PD
Enhances use of your printer from AMOS.
• Easy Life: Paul Hickman, PD
This extension tries to make programming AMOS easier and contains lots of new instructions, like support for Powerpacker and iconify AMOS! interesting and useful.
• Enhanced Music Extension: P. Reece, PD
Fixes AMOS's Tracker command bugs – even allows the playing of MED modules from AMOS 1.3, and adds other new commands.
• INTOS: OTM, £29.95, ☎ 01827 312302
A commercial extension making use of Intuition. Gives you the power to use the standard ASL file requester, as opposed to the rough old AMOS one. Workbench-type menus, windows and gadgets. Very easy to use and powerful. Great for writing utility programs.
• JD (AMOS Pro only): J. Dommermuth, PD
Offers loads of new commands. The docs are in German, though I understand that they are being converted to English.
• L-DOS: N. Sjoberg, PD
Has many new commands mainly relating to disk/drive access plus many more unrelated commands. To give you an idea of the size of this extension, the doc file is 80K long!
• L-Serial: N. Sjoberg, PD
Many new commands to make use of the serial port.
• Liberator: T-Soft, £22.50, ☎ 01292 570373
Offers Intuition and allows access to all Amiga libraries. Not one for the AMOS beginner though, unless you are very familiar with C.
• OrgAsm: T-Soft (demo with Liberator)
Another advanced coder's dream. Allows you to use the Assembler source created from the Gadstoolbox program in an AMOS bank. Beginners beware.
• Powerbobs: Magic Knight, £25, Contact: 19 Norman Rd, Ilford, Essex.
At the time of writing this has not been finished but I have been led to believe that Powerbobs speeds up all bob/sprite commands to an amazing frame rate.
• Stars: Jason Diog, PD
Gives AMOS interrupt driven starfields. Very small and very easy to use.
• Sticks: N. Critten, PD
Offers a variety of joystick-related commands.
• Turbo: Manuel Andre, V1.9, PD
Adds speed to graphic/bob operations. Has an obsessive following by the more advanced AMOS games coders. Worth checking out.

Where to get them:
The PD extensions are available from most Public Domain libraries. Try 17Bit Software on ☎ 01924 366982 (or check out the PD houses listing in the Information Zone on our Coverdisks – see page 12).
AMOSZine has carried all the PD extensions mentioned above ☎ 01392 493580.

AMOS news

The whisper on the AMOS grapevine is that Europress Software are considering licencing AMOS Pro to an Amiga developer. According to an extremely reliable source this could happen sometime in early 1996. The package will probably include the AMOS Pro Compiler. The retail price has not been discussed, but it is generally thought that it will be much lower than AMOS Pro's original price tag.

Over the past two years there have been a lots of rumours about the existence of an AGA extension for AMOS. Now it seems all AMOS users' prayers have been answered. Amiganuts are the sole distributor for the first ever AMOS AGA extension. Priced at a reasonable £9.99. Call Amiganuts on ☎ 01703 348943.

AMOS support

There is still some support for AMOS programmers in the shape of the AMOS disk magazine called AMOSZine. It comes on three disks per issue and costs £5.99. Currently on issue 8, it is full of source code, tutorials, hints and ideas. Contact F1 Licenceware on ☎ 01392 493580

Studying other peoples' source code is the best way to learn to program. If it's source code you want and you have access to a CD drive then you could do a lot worse than buy the Official AMOS CD from Weird Science. It contains over 1,600 source code files covering virtually every type of program you can think of, from full-blown games to tiny utilities. Contact: Weird Science on ☎ 0116 234 0682

If you have access to Aminet or the Aminet CD's then don't miss the Dev/AMOS section. It has oodles of source code and, more importantly, an AMOS list. If you join the list you can talk to other AMOS users around the world and ask for/give programming help and advice. It is also a great place for AMOS-related news.

On the Aminet CD's is an archive of all the messages posted each month to the list – they make some really interesting and informative reading. Don't miss it.

There are quite a few AMOS tutorial books available too and they are all excellent. Here are three I know of:

- **Ultimate AMOS by Jason Holborn – Future Publishing ☎ 01225 822511**
- **AMOS In Action by Len Tucker – Kuma**
- **Amiga Game Maker's manual by Stephen Hill – Sigma**

for users with no extra drives. It also demonstrates the use of the AmigaDOS copy command quite nicely.

Our next task is to allow the user to select a file that has been archived with Lzx. Any file archived with Lzx should have the extender .Lzx so they are easy to spot.

Allow user to select an archive to extract:

```
S$=Fsel$("*.Lzx","","PLEASE SELECT A
.Lzx FILE","")
```

The above line brings up the AMOS file requester. Notice I have used the .Lzx wildcard so the requester will only show files ending in .Lzx. This saves the user time sorting through non-Lzx files. I have simplified this part of the routine by not including lots of checks, like making sure a file has been selected and checking it is an Lzx archive etc.

Now we get down to the work, or rather, making Lzx do the work for us.

Extract the archive and save into RAM:

```
Exec "ram:Lzx X "+S$+" Ram:"
PRINT "ALL DONE"
kill "RAM:Lzx
```

The "X" in the first line tells Lzx that we want to extract the file S$.

See Lzx's documentation for loads of other parameters. The line, Kill "Ram:Lzx", deletes the Lzx program from RAM: And that is it. We have just written an Lzx de-archiving utility. It's a bit crude, but with a nice front end and more options who knows what you could do?

However, the point of this first AMOS tutorial is to demonstrate that you can easily call external programs from AMOS. There are hundreds of utilities and AmigaDOS commands that you can use in this way to enhance your programs and most of them can save you a lot of time and programming. The only way to find out what you can really do is to try.

AMOS Classic users

The "Exec" instruction is only available in AMOS Pro, AMOS Classic users will need to use the following code instead.

```
COMMAND$="copy df0:c/Lzx
ram:"+CHR$(0)
Dreg(1)=Varptr(COMMAND$)
Dreg(2)=0
Dreg(3)=0
XEXECUTE=Doscall(-222)
S$=Fsel$("*.Lzx","","PLEASE SELECT A
.Lzx FILE","")
COMMAND$="ram:Lzx X "+S$+"
df0:"+Chr$(0)
Dreg(1)=Varptr(COMMAND$)
Dreg(2)=0
Dreg(3)=0
XEXECUTE=Doscall(-222)
PRINT "ALL DONE"
kill "RAM:Lzx"
```

AMOS extensions

This is a chart for AMOS Classic and AMOS Pro that lists the extension slot numbers already in use. The original idea was that each extension was to be allotted an official slot number, allowing the AMOS user to have as many extensions installed as they wished, up to a maximum of 22. Because it is now impossible to get Europress to make an extension official, programmers of new extensions are just choosing the least used numbers. This can sometimes cause problems with other extensions that need to use the same slot number. These unofficial extensions have a * after the slot number. (These extension slots are in use according to the Amos.Faq, found on the Aminet.)

SLOT	AMOS CLASSIC	AMOS PRO
1+	Music or EME v4.64	Music or EME v4.64
2	Compact v1.2	Picture Compactor v2.00
3	Request v1.41	Requester v2.00
4	3D v1.00	3D v1.02AP
5	Compiler v1.36	Pro Compiler v2.00
6	Serial v1.2	IO Devices v2.00
7	TOME v4.24	Not used
8	CText v2.5	Not used
9	Range v2.8	Not used
10	Dump Lib	Not used
10	LDos v2.5	LDos v2.5
11	LSer v2.1	LSer v2.1
12	TURBO PLUS v1.0	TURBO PLUS v1.0
14*	Intuition v1.0	Intuition v1.0
15	DSam	DSam
16*	EasyLife v1.4b	EasyLife v1.4b
18	CRAFT v1.00	CRAFT v1.00
19	MusiCRAFT v1.00	MusiCRAFT v1.00
20*	AMOS OS Interface v3.4	AMOS OS Interface v3.4
21*	PRT_Extension v1.1	PRT_Extension v1.1
22*	JD_Extension v4.6	JD_Extension v4.6

**Note: (+ EME is Enhanced Music Extension and is a replacement of the Music.Lib)
If, for example a new extension is released and it needs to use slot number 18 then according to this table you will see that you won't be able to use the Craft extension at the same time.**

AMOS extensions

Since AMOS has not seen an update for quite some time – and probably never will now – AMOS extensions seem to be the only way that will be able to compete with other programming languages in the future. So we AMOS users are going to have to rely on third-party developers to bring out new extensions to fix bugs in AMOS and expand its instruction set.

An extension is a library of routines usually written in Assembler or C. You copy the .lib file of the extension into your AMOS System drawer and add the extension name to the appropriate extension slot number. This is achieved by loading the AMOS Config file. The extension's doc's will tell you which slot number to use.

After re-booting AMOS you can then use the new commands as specified in the documentation of the extension. If you get an "Extension not found" error you may not have installed the extension properly. The commercial extensions, and indeed some of the better Public Domain ones supply an installer program that makes all the necessary changes for you. (See AMOS extensions boxouts on both these pages.)

Next month, I will be looking at how to store executable programs inside your AMOS code and how to display AGA pictures from AMOS without using an extension. ■

Mail Order

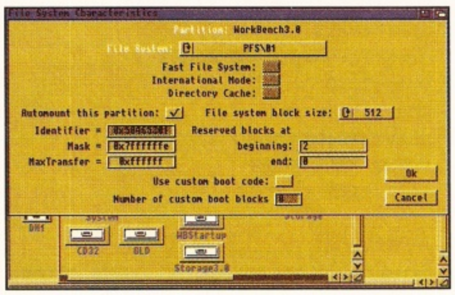
In our fight to bring you knock-down prices we have gone one stage further – subscribers now save even more. How can you say no?

Turbotech Clock Cartridge

Your Amiga will always know what day it is with this handy device – even after it's been switched off! Once the supplied software is installed, boot-up and the time and date are already set. Fits into the disk drive port (or on the back of your second drive).



Description	Turbotech Clock Cartridge
RRP	£19.99
AS price	£17.99
Order code	AMFCLO
Special subscribers price	£16.99



Ami-FileSafe

The new standard filing system for the Amiga. Not only does Ami-FileSafe achieve greater speed and efficiency than FFS, it also brings the extra security of a filing system that can survive Guru meditations and crashes without causing disk block errors.

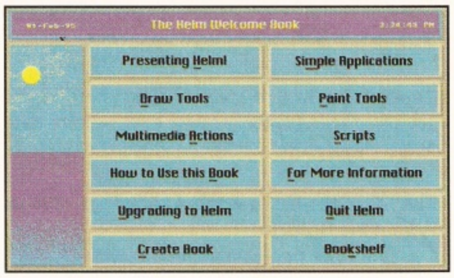
Description	Ami-FileSafe
AS price	£69.75
Order code	ASAFS
Special subscribers price	£65.75

Mouse 'n' Mat

At last! A quality replacement mouse at a bargain price, complete with mouse mat. The 260dpi resolution mouse is 100 per cent Amiga- (and Atari ST-) compatible and both buttons are fully micro-switched for maximum performance.



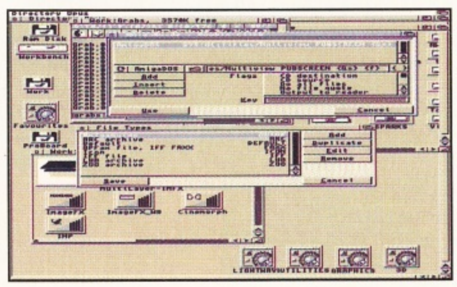
Description	Mouse 'n' Mat
AS price	£12.99
Order code	AFMM
Special subscribers price	£11.99



Helm

A true multimedia authoring system for the Amiga, Helm earned 91 per cent when reviewed by our Consultant Editor Nick Veitch in Amiga Format. Create custom image editors, personal information managers, presentations, kiosks, free-form databases, or educational courseware. Helm is both an authoring system and a graphics program, combining draw, paint and image processing tools with a scripting language, a hypermedia database manager and an assortment of user Interface objects.

Description	Helm
AS price	£99.95
Order code	AMF503
Special subscribers price	£94.95



Directory Opus 5

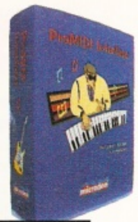
save £10

The latest incarnation of this superbly powerful and well-designed file manager received 92 per cent and an AS Star buy award in issue 51 (see page 69 for back issues). Directory Opus 4 was brilliant and version 5 is no exception. Now this program can be yours for £10 less than the RRP of £59.99.

Description	Directory Opus 5
AS price	£49.95
Order code	ASOPU
Special subscribers price	£45.95

MIDI Interface

Test your Amiga's musical talents with the ProMIDI Interface. Add synthesizers and drum machines to your Amiga and use the samples with Amiga Format's Music-X (AF58) and OctaMED (AF29) Coverdisks.

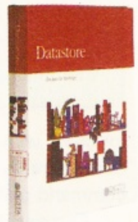


save £5

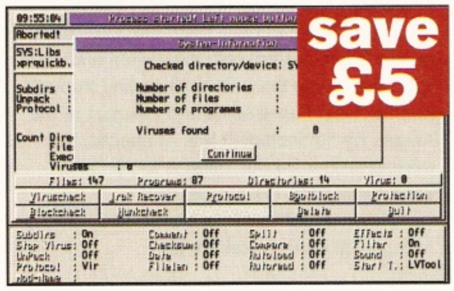
Description	Midi Interface
RRP	£24.95
AS price	£19.95
Order code	ASMIDI
Special subscribers price	£17.95

Datastore

Datastore is an accessible and powerful database. The number of records is limited only by the amount of RAM you have available (at least 1Mb with WB2 or 3). Easystart templates that accompany the package include Club Membership and an Amiga Format guide. The Amiga Shopper guide, on the AS47 Coverdisk, has been designed to be used with this ground-breaking release.



Description	Datastore
AS price	£49.99
Order code	AFDAST
Special subscribers price	£45.95



save £5

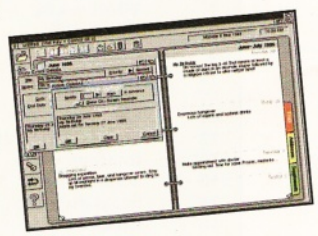
Antivirus

Siegfried Antivirus Professional – to use its full name – is an essential buy for those who suffer from virus attacks. It can be used with all types of Amigas with a 1.3 or advanced Kickstart version and 1Mb RAM. Save £5 off the RRP of £39.99 by buying from AS!

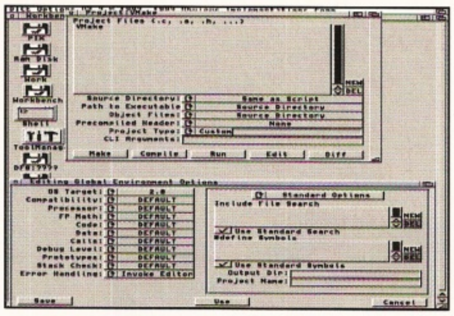
Description	Siegfried Antivirus Professional
AS price	£34.99
Order code	ASHVIR
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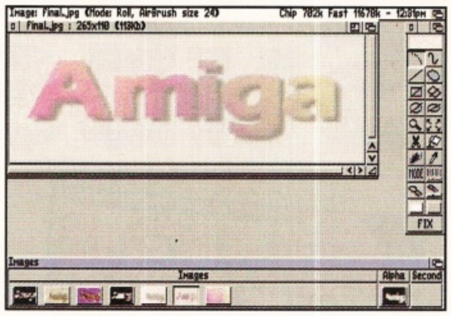


Vista Pro Lite

This truly amazing fractal landscape program from Meridian enables you to build your very own scenery on your trusty Amiga. After you've created the absolutely perfect landscape, you can animate it to create stunning fly-bys, or simply use it as backgrounds in your own games, pictures or 3D renders. *And* it even works on standard A1200s. Definitely one not to miss!

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There can't be a single Amiga owner who isn't aware of this powerful package and the incredible impact that it has had on the Amiga scene. The most talked about image manipulation package ever also gives you the creative freedom of a traditional paint program. Check out our Photogenics tutorials (AS48 to AS54) and find out what this great program can do (back issues, page 69). And you could, of course, get hold of Amiga Format issue 69 and try out the demo on the Coverdisk.

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Complete music round-up and Supertest; why Amigas are the best home computers in the world; reviews of Real 3D version 3, Iomega Zip drive; DTP, Photogenics, DICE, and Comms tutorials; on the Coverdisk – Protext Utilities and masses more £5

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Art package Supertest; pop stars who use Amigas; exclusive PowerStation preview; reviews of Aiwa CD-ROM, ProGrab 24RT Plus, masses of CDs; Photogenics, Assembler, DICE and Comms tutorials; on the Coverdisk – Protext 4.3 part 1 and loads more £5

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Scanners Supertest; special report from Escom; emulators feature; reviews of Organiser, SyncMaster 17GLsi, Final Data 2, a staggering 19 new CD-ROMs; Photogenics, Assembler, DICE and Comms tutorials; and two completely jam-packed Coverdisks £5

Issue 51



Printers Supertest; Commodore sold! story; ARexx feature; reviews of CyberStorm 060, Directory Opus 5, Termite, Broadcaster Elite, DiskSalv 3, Hi-Q PowerStation, CD-ROMs; AS versions of Organiser and Twist 2 on the Coverdisks £5

Issue 50



Genlocks Supertest; 10 years of the Amiga; PD Workbench utilities; reviews of GoldenGate2, Picasso II, DPaint V, Multilayer, 3D Arena, The Light Works and more; tutorials; Answers; a special version of Personal Paint on Coverdisk 1 ....£5

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Nick and Dave *are back to cement their writing partnership by rummaging through the PD mailbag and then squabbling over who gets to review what. Here's what they unearthed...*

We were completely deluged with disks again this month and so we can once again write reviews of all the latest and best products in the world of PD, Shareware and Licenceware. Amiga Shopper is dedicated to bringing you top-notch software. Always.

French Tutor

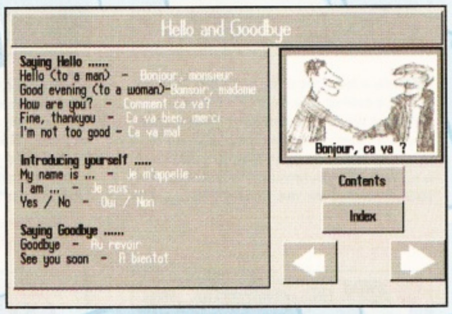
If you're learning French but are fed up with the text book adventures of Monsieur Lafayette, Jean Paul, Marie-France and the gang, why not try a digital alternative?

French Tutor takes you through the basic steps, from simple hellos and goodbyes to names of objects, kitchen utensils etc. With each page you're given a well-drawn cartoon depicting the subject to learn.

Once you think you've mastered the language, click on the quiz icon. This follows the much-used pub quiz policy of three possible answers for each question. Get it right and you move on. Get it wrong and you're told the right answer. There's no time limit, though.

French Tutor is aimed at beginners to the language, so don't expect to walk through your 'A' levels with this program. However, if you need to brush up, or are just starting, you could do a lot worse.

Verdict: 89%



With French Tutor you'll soon be saying "Please stop your nuclear testing" with ease.

Amiga Help 4

Despite the fact that Amigas are only just now coming back on sale, there has always been a thriving market for beginners. Either ex-games players wanting to get more from their machines, or people who bought second-hand Amigas. Now that new machines are selling, we can reasonably expect the market to grow further. This is where products like Amiga Help 4 come in.

Last month we included the Licenceware Introducing Workbench on our Coverdisks, which gave a tour of the Amiga's main front-end. Amiga Help 4 contains more guides similar to that one. If they prove as popular as Introducing

Who, what, where, when, why, how...

Product	No of disks	Type of product	Price*	Supplier	Contact	Verdict	Page
French Tutor	one	Tutorial	75p	Online PD	01704 834335	89%	70
Amiga Help 4	one	AmigaGuide	95p	Saddletramps	01709 888127	90%	70
Lunch Pak 7	one	Demo	75p	Smileys PD	See PD directory	80%	71
The Book Database	one	Application	£6	Edward Beak	See PD directory	37%	71
Sauce 'n' Code	one	Tutorial	75p	Online PD	01704 834335	78%	71
MultiPrint 5	one	Utilities	£1.50	Seasoft Computing	01903 850378	75%	71
ADPro Extras	one	Utilities	£1.50	Kew=II	0181 6571617	65%	71
Killing Time Demo	three	Demo	£2.97	Numero Uno	01262 671125	80%	72
World Of ASCII Demo	one	Demo	99p	Numero Uno	01262 671125	82%	72
Disk System	one	Application	£2.95	5D @ Saddletramps	01709 888127	95%	72
AMOSzine issue 8	three	Diskmag + tutorial	£5.99	F1 Licenceware	01392 493580	88%	72
Edd Walters And Roswell Slides	two	Slideshow	£1.50	Online PD	01704 834335	83%	73
ARexx Manual	one	AmigaGuide	£1.50	Kew=II	0181 6571617	90%	73
The Word 7	two	Diskmag	£2	Deck the Ripper of NFA	0116 2661610	90%	73
Beginners Guide To WB 3	one	Tutorial	£3.99	F1 Licenceware	01392 493580	91%	73
Blackboard 4	four	Application	£8.99	F1 Licenceware	01392 493580	90%	73
Modem Mate	one	Utility	90p	Roberta Smith DTP	0181 4551626	40%	75
Netsurfer 1	one	Utilities	90p	Roberta Smith DTP	0181 4551626	90%	75
MusicLine Editor 1.11	548K	Application	n/a	aminet/mus/edit/	MLED112.lha	95%	77
WB BootPics 95	454K	Artwork	n/a	aminet/pix/icon/	WB_BootPics95.lha	80%	77
SFX 2	647K	Application	n/a	aminet/mus/edit/	SFX_20.lha	90%	77
SFX 2 guides	86K				SFX_20_guides.lha		
ImageFX Extras	one	Utilities	£1.50	Kew=II	0181 6571617	65%	77

Some prices include P&P; buying more than one disk from a PD house is likely to reduce the price per disk; check compatibility of program with PD house before purchasing. More information on all the PD houses and their prices can be found in the PD Directory on the.Coverdisks, including their postal addresses and payment details.

WB, the authors should be proud of themselves. There's a CD-ROM guide (that AS actually included on the Subscribers Disk a few month's ago – so you know that it's good), and a System guide, that we also rate very highly. In fact, we think it's a pretty comprehensive guide to the Amiga's OS – definitely worth a read if you've just started exploring the system and know something, but want to know exactly what specific files are for. There's also a Comms guide, so it's quite an eclectic collection.

It's very altruistic of people to pass on their knowledge in an attempt to help out those less experienced. These guides provide a cheap way of doing this. Congratulations to the authors.

Verdict: 90% **Star buy**

Lunch Pak 7

This disk is a collection of 40K+ demos (or intros as they are more accurately called in Europe). Don't expect this disk to do anything, except show you some rather nifty demos and there's also a part which has 10 small chiptunes. Our favourite demo was the Models Inc one which, whilst not original in concept, was really well executed. It's an entertaining set for the price of a disk.

Verdict: 80%

The Book Database

Oh dear. What can we say about this one? First, The Book Database is incompatible with the AGA Chipset, so A1200 owners have to disable it. Second, it's written in AMOS (which is a powerful tool in the right hands, but a recipe for disaster in the wrong ones), and third, it's… well, rubbish.

We feel bad about saying this, but we have to be impartial. Obviously, all programmers lack skill at some stage of their development, but that doesn't mean that they need to inflict it on us. Develop your skills, then submit the program. And don't blame AMOS. AMOS is a programming tool – if you produce something terrible that's your fault, not the package's.

Just for the record, you're presented with an ugly screen that enables you to enter all your book details. You can't skip from item to item and the whole procedure is a burden.



Lunch Pak 7 has demos, or intros, which show what can be done with as little as 40K.



Sauce 'n' Code provides AMOS users with source files and a crap pun.

In essence there are much better databases available that can do this job perfectly and, more importantly, can be adapted to any subject, not just books. Oh, we tested the demo version with the capability for storing 20 entries. For a £6 registration fee you can upgrade to 9,999 entries. But don't bother.

Verdict: 37%

Sauce 'n' Code

Sauce 'n' Code is a witty pun for a disk that provides AMOS source files and demos of AMOS wizardry. The disk is well put together, offering a list of various explanations, source files, demos etc.

However, Sauce 'n' Code is aimed at the AMOS beginner. There's nothing here that an experienced programmer wouldn't know how to do – or even want to do.

Also – and this really irritates us – the programmers seem to feel authorised to occasionally swear to prove how 'ard they are. Please don't. It just lost them 10 per cent.

Verdict: 78%

MultiPrint 5

Tops marks to the compilers for attempting to pack loads on to this disk. Some of it has even been archived to squeeze it all on. On the other hand, the contents are quite specific.

There are new drivers for a couple of printers, the Primera, LJ4, 550C and Epson. Most of these are quite high-end printers, so they are going to be of limited appeal.

There are also four utilities on the disk: MiniPrint, Neat, MiserPrint and TapeCover. Two of these utilities are for printing out tiny text to save paper. Neat is to help with re-formatting docs and TapeCover, well, guess. We dislike the default document viewer that the authors have used – unfortunately, it really makes the disk look amateurish.

On the whole, MultiPrint 5 will attract people who want those printer drivers, but despite being packed, it doesn't offer much else.

Verdict: 75%

ADPro Extras

Art Department Professional is one of the programs we use most. We were therefore quite happy to see a disk packed full with additional utilities. Quite a few of these are ARexx scripts, but there are also some loaders, like MPEG.

The one that caught our eye was ADProToolBox, which claims to be able to batch convert files, including changing file types, palettes and screen formats.

Unfortunately, there doesn't seem to be the whole package here. The rexarplib.library was missing, so we had to track it down ourselves. Then, although it seemed to work, it didn't actually save the pictures, and seemed to lock the palette and the menus had a horrible WB 1.3 feel to them. We're sure that the package should work fine, but the guide file was also missing, which deprived us of the help needed to sort the problem out.

▶ 72

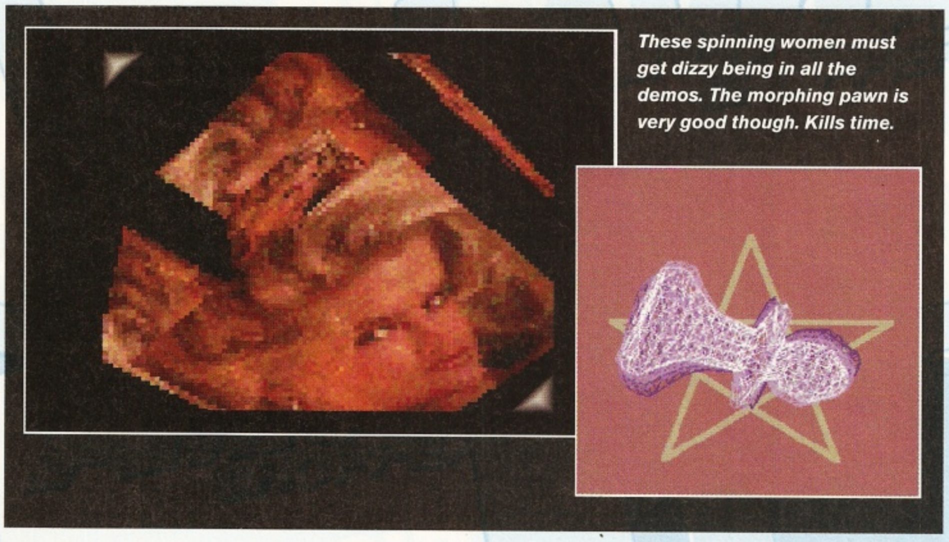
PD submissions

If you have some exciting PD disks that you'd like to be considered, send them into the magazine at the usual address, clearly marked as a PD Submission. We welcome any type of disk, except games.

If you are a PD house, make sure you include all the information necessary, such as how to contact you, how much the disks cost and how people can pay.

If you are the author of the program, state where people can get your program from, and whether you would like us to consider it for inclusion on a future ShopperChoice Coverdisk.

Information about new PD houses or PD authors is accepted for inclusion in the PD directory – see the directory for details.



These spinning women must get dizzy being in all the demos. The morphing pawn is very good though. Kills time.

We'd still say it's worth looking at if you're an ADPro user. After all, you forked out over £100 for the program, so an extra pound to check these out isn't going to be a problem. Be prepared for some hard work getting them working though.

Verdict: 65%

Killing Time Demo

We're in two minds about computer demos like this. On the one hand they usually look gob-smackingly sexy and therefore make you feel proud of your computer's outstanding hardware. But on the other hand they never let you do anything but watch, creating a suspicion that there's some underhand programming techniques used. Hardcore demo programmers would argue that dodgy programming tricks are the point of demos, but we'd rather see a movie with great special effects. What are we talking about? Er… Let us explain.

Killing Time comes on four disks. Blimey that's a lot for a demo – it must at least have a complete game on there. Nope. The first does nothing except ask for disk two. Once that is inserted the action starts. Groan – it's more texture-mapped 3D polygons all over the place. Now why should this require 1.6Mb of disk space? The graphics are okay, but not stunning, and there's little else to it. Hmm, maybe everything has been pre-drawn and stored in memory? Hang on, can't anyone with some spare time do that?

And here's our whinge – if you write a demo, the only way to show off your talents is by allowing for some interactivity. After all, Doom on the PC and Marathon on the Mac would be pretty boring without the ability to explore. Of course, we could be doing Killing Time an immense injustice – maybe everything is rendered on the fly. Maybe this is programming genius in the making. Or maybe not.

By disk three things started to pick up a bit. Wireframe shapes floated and morphed around the screen – attractive, and best of all original. In essence, however, we've seen it all before, and we've seen it better.

Verdict: 80%

World Of ASCII Demo

Following the footsteps of Killing Time, the World Of ASCII does much the same thing, only with ASCII characters rather than graphics. The resulting demo spins letters and blocks around the screen, resembling a CEEFAX page that's gone crazy. Not since the days of ZX Spectrum graphics have we seen anything so… blocky.

But that's ASCII for you. On the plus side it's smooth and it's different (although this time

Licenceware

Licenceware can be a real treasure trove, often giving you great products at prices less than the normal Shareware registration fee. It's just a case of knowing what to look for, which is where we come in. Oh, and a quick plea on behalf of Licenceware authors, please don't copy Licenceware products. Their cost is minimal, as low as £3, so you're not saving any money, but you could be destroying a piece of the Amiga community that has played an important part in its survival. Sermon over.

Disk System

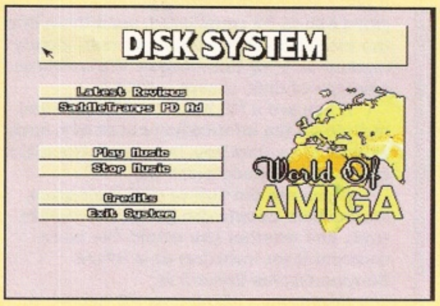
Creating your own multimedia presentation, even if it's only a diskmag, is a very rewarding experience, but it's not the easiest thing to achieve. This program is supposed to make it all easier. Now Scala, it isn't, but nor does it claim to be. It is really for creating single disk presentations, which it does by having its program on a disk, and you then place your docs and pictures and music on the disk in specific drawers. When that is done, you load the editor and create the screens. It's very adaptable, allowing you to choose fonts and colours and the position of buttons. However, it's not that easy to use. In the docs, the author suggests you print out the manual if you can; we would say this was a pre-requisite.

When you've got it in front of you, it's easy enough to work through, especially if you're used to the way Shell-like commands work. We think the interface could have been slightly more advanced, with a better editor. As it is you have to enter a line and then click to move on to the next command each time.

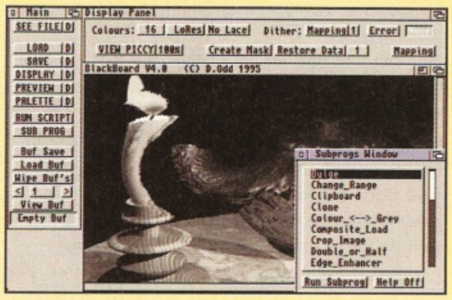
The program comes on a single disk, with the programs on as well as two DMS files. One of these is a demo, which is a good idea, and the other is for the blank disk on which you can make your own creations. At first we thought that this was just a good way to save space and not have to charge for more than one disk. We then realised that this system actually works for the user. Instead of having to set up a blank disk each time, copy the correct files in and set up the right directories, all you have to do is double-click and unpack the DMS. Bingo! A disk ready in a minute.

This program has its limitations, and is obviously restricted to single floppy creations (unless you're willing to start experimenting with assigns), although it can pack files to optimise disk space. Disk System produces impressive results with just a little bit of patience on your part – when learning how to use it.

It's an excellent introduction to multimedia authoring (which sounds a bit ostentatious for this package) and should be sufficient for lower-end use. At £3 for the package, what are you waiting for?



Disk System allows you to create low-level multimedia easily, if you read the manual.



Blackboard 4 is the update of the Licenceware package that's on this month's Coverdisk.

Verdict: 95% Star buy

AMOSzine issue 8

AMOSzine is a disk mag dedicated to AMOS users. The magazine itself is fairly basic, with about 30 pages in total (remember, these pages use the Amiga fonts, so you don't get too many words on them), explaining the goodies.

The goodies include masses of AMOS programs, source files, extensions, graphics and MOD files, for users to learn from, steal or just browse through.

There's nothing more to say. If you're remotely interested in programming in AMOS, this disk is worth checking out.

Verdict: 88%

I'm not sure whether that's such a good thing). But again, you just sit and watch. Are we missing the point?

Maybe the idea is to work out just how they made everything so smooth? Maybe it's a good way of getting a floppy disk that you can then format for your own use? Maybe we're over the hill? These sort of demos used to fascinate us. Now we're just a pair of old cynics.

Verdict: 82%

Edd Walters And Roswell Slides

For those who aren't familiar with the supernatural, this two-disk slideshow of AGA pictures will make you a believer – maybe.

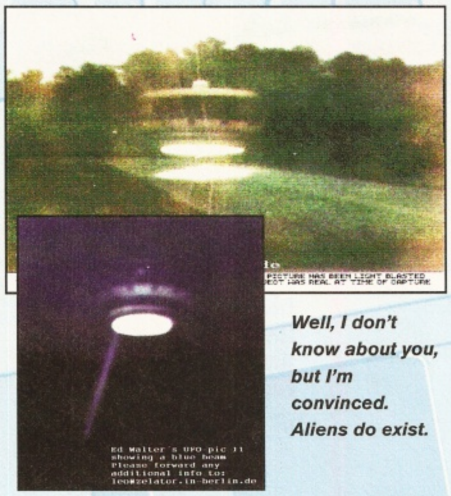
The first disk contains hi-res slides taken by Edd Walters in New Mexico. Sounds like someone's holiday snaps, we know, but the subject of interest is aliens – invaders, strange beings from another planet come to Earth.

The quality of the pictures is just a bit too hairy to be convincing, but naturally the blurb at the start tells you all the original photographs have been tested and are not fakes. Hmm.

Moving to disk two, we had a strange feeling of déjà vu – was there a paranormal presence in the disk drive, or were most of the pictures the same? Well, viewers, you decide.

An original and provocative slide show. And remember – the truth is out there.

Verdict: 83%



Well, I don't know about you, but I'm convinced. Aliens do exist.

ARexx Manual

We'll give Kew=II their due, they've packed their disks full. This one contains an ARexx manual that's so large, it's had to be kept in archive format for you to de-archive yourself. Now, they could have done that and put it out on two or more disks, but they haven't, which is much more public spirited.

The manual is well written and comes with some examples. We're impressed with the introduction too, because it clearly explains the idea behind ARexx and how it works.

If you're interested in using ARexx – because all the mags keep saying how great it is – but you are still in the dark about how to even begin (or if you do know a bit more than that), this manual is the answer.

Verdict: 90% Star buy

The Word 7

Heh, heh! Another diskmag! Get ready to slip into mega-bitch mode. Oh, but it's really rather good. Boot the disk and you get some rather well-designed intro screens, followed by a super menu system with an anim playing in the background. The setup of The Word is the best we've seen.

However, the content varies, as does the quality (but then again, they might say the same of AS [except they'd be wrong, 'cos it's always ace]). The "scene" stuff seems to revolve around how one software pirate got busted and how "pigs" are a pain. Can't say that part impressed us – you broke the law and got caught. You can't blame the police for doing their job!

The more serious articles are much more informative and of interest. There are sections on hardware, like accelerators, and lots on programming. Some of the writing is a little juvenile, which isn't surprising when you see some of the birthdates of the contributors.

Now we didn't mean that to sound as patronising as it did. It is excellent to see that the Amiga attracts interest from such a diverse group, and the technical knowledge of some of the writers is stunning.

▶ 75



This is the first frame of an animation created with Blackboard. Everything looks normal.



The animation further down the line, and things are starting to disappear in a whirlpool.



It's all been sucked down the plug-hole! A great animation that was simple to create.

Absolute Beginners Guide To WB vol. 3

This is volume 3 of the Workbench guide, concentrating on the Tools drawer. And mighty fine it is too.

But before we sing its praises, here are the niggles. The program covers Workbench 3 only, so A500 users may as well forget it. Also, the instructions given in the docs don't quite describe what actually happens. Now this may sound picky, but considering this product is aimed at the beginner, it's best to spell everything out with perfect accuracy.

Ignoring those minor problems, this is an excellent package. It's an AmigaGuide file covering the Tools drawer and everything that is related to it. Diagrams are used to illustrate points of interest, and any jargon has a link to an explanation, like the jargon busting box outs you find in Amiga Shopper.

Absolute Beginners Guide To WB 3 is a well-constructed, easy-to-use package that explains everything accurately and comprehensively. Good job.

Verdict: 91% Star buy

Blackboard 4

This is the new version of this month's Licenceware program that we're giving away free on the Coverdisks. The previous versions have been raved about, getting over 90 per cent in this very tome. Version 4 sees quite an update. The whole GUI has gone modular, so you have different windows controlling different aspects.

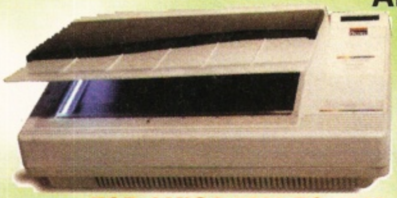
The amount of operators available is very impressive. We found a couple of problems, but on the whole they worked fine. Particularly impressive was the spiral ARexx script which creates animation frames of your picture going down the pan – literally. This had everyone in the office enthralled – including our art editor.

The fact that you can only really load and save ILBMs is a bit of a restriction, but at least it guarantees that you can use the pictures in other Amiga packages. We doubt that Blackboard could be your only picture package, but it is very useful.

A couple of years ago, there were no picture processors in the Public Domain. This Licenceware product comes with a full printed manual for £9, which makes it very cheap, even when compared to its other Shareware competitors. It's really impossible to say which of all these packages is the best one, because they all have different things to offer, they all offer different effects and operators, and they're all pretty good.

Verdict: 90% Star buy

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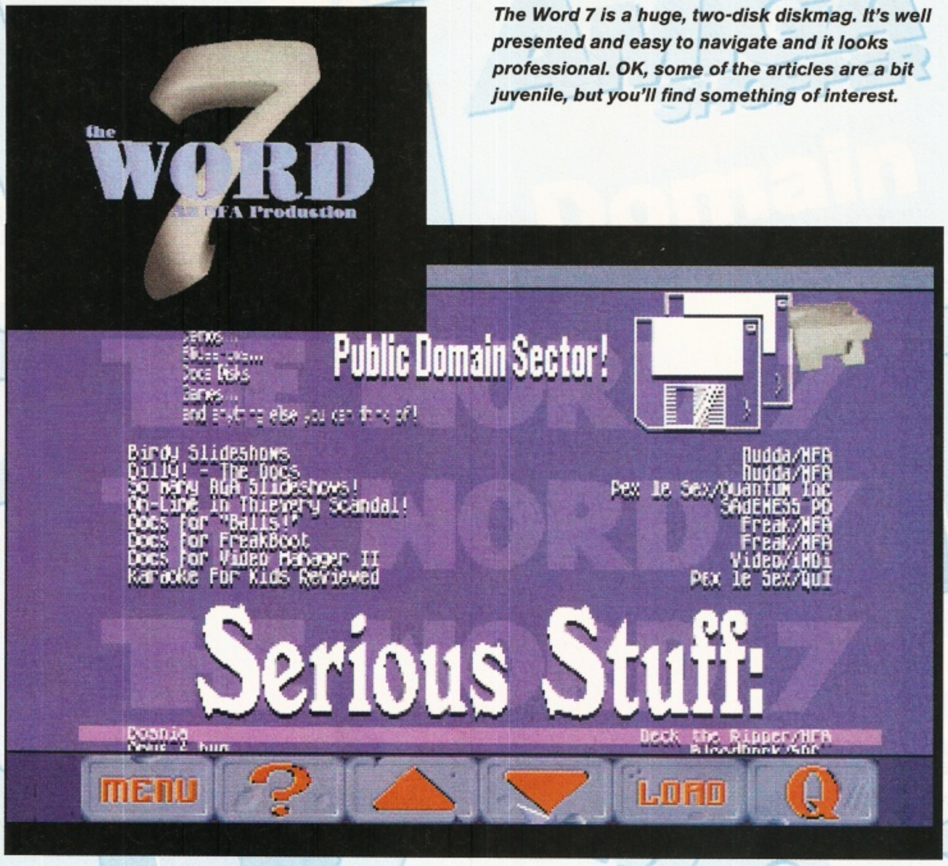
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The Word 7 is a huge, two-disk diskmag. It's well presented and easy to navigate and it looks professional. OK, some of the articles are a bit juvenile, but you'll find something of interest.

The PD directory

You'll notice references to the PD directory this month. This used to be printed within the magazine, but had to be in very small text because of the amount of information it contained. To solve this, we've updated and re-compiled the list and included even more information. The whole directory has been included as a text file on the Coverdisk.

You'll find an Information Zone on the disk which contains both this PD directory and the User Groups. They are both in two formats, AmigaGuide and ASCII. The AmigaGuide enables you to point and click your way to the information, making it much easier to find the details you require. Read the Readme file for more information. You can, of course, print the information if you want to, and save yourself the trouble of writing an envelope! See page 10 for details. If you have some exciting PD disks that you'd like to be considered, send them in to the magazine at the usual address, clearly marked as a PD Submission. We welcome any type of disk, except games.

If you are a PD house, make sure you include all the information necessary, such as how to contact you, how much the disks cost and how people can pay.

If you are the author of the program, state where people can get your program from, and whether you would like us to consider it for inclusion on a future ShopperChoice Coverdisk.

Information about new PD houses or PD authors is accepted for inclusion in the PD directory – see the directory for details.

There is also an adult section that requires a password that you can work out from a cryptic clue. This gives you access to some articles with a more adult theme.

The Word is drawn from a reasonable range of contributors, and has masses of articles on a plethora of subjects.

It's slickly presented and with a maximum price set at £3 for the two disks. This is one of the best disk magazines around. If you want one, look at The Word.

Verdict: 90% **Star buy**

Modem Mate

This program was released a few years ago and I'm afraid it shows. It is designed as a way of calculating your telephone bills and keeping track of your phone numbers. The data about times and costs has to be entered manually and saved every time.

There are better programs around which offer more power without sacrificing ease of use – Online-o-meter, for instance, was on AS53's Coverdisk. Steer clear of Modem Mate.

Verdict: 40%

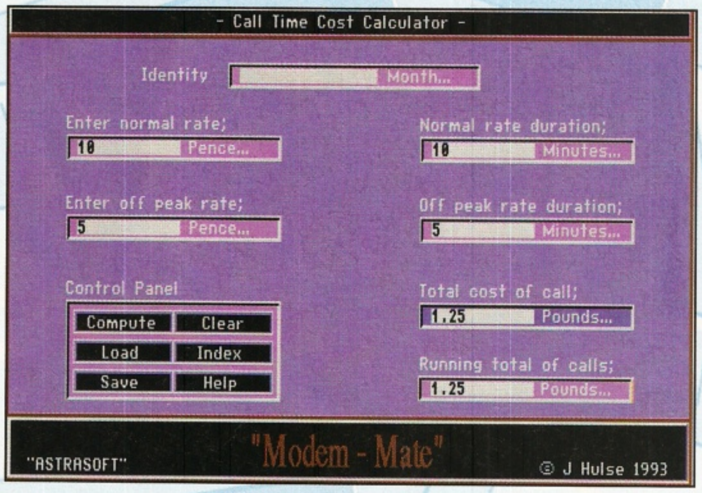
Netsurfer 1

This is a really great set of utilities. The only problem is that regular readers of AS will already have most of them because we've included them on Coverdisks in the past. So if you're a new reader to AS, read on. Otherwise you might want to skip to the next review.

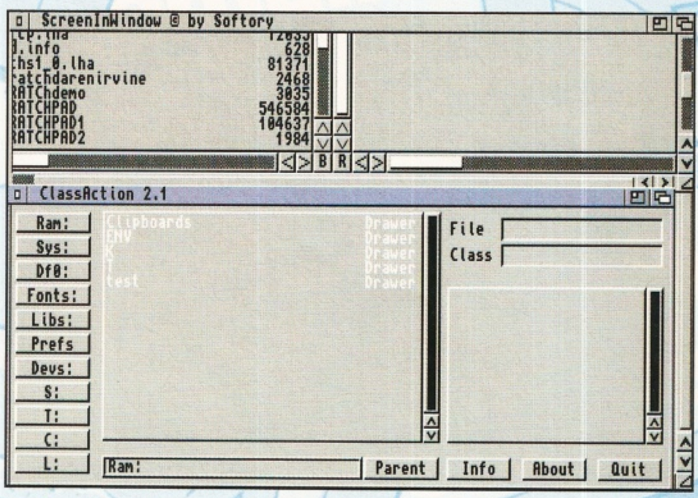
There are eight programs in total. AmigaTemp is a hardware/software project for you to build your own thermometer for use with your Amiga. ClassAction is a great Workbench utility that does several things depending on the filetype – as the name suggests the action is defined by the file class. We think it's excellent.

Tinymeter is a memory meter. Boot Utility 2 is for those who need to degrade their system. Screen In Window is a nice util for showing other screens inside a window on your WB screen. You must read the docs to set it up correctly, but it's useful for having your modem downloading in the background so you can

▶ 77



Modem mate – a reasonable program, but way behind the times.



Netsurfer 1 is a set of top utilities that may seem familiar to AS readers.

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Internet select ;-)

It's been incredibly tough choosing the programs from the Internet this month. There's so much good stuff out there, that we apologise in advance to those whose programs didn't make it in. We've tried to include the programs that you might not have thought about looking at. Don't forget that as well as being able to obtain the programs from the source we quote, you can also get them directly from our own FutureNet ftp site.

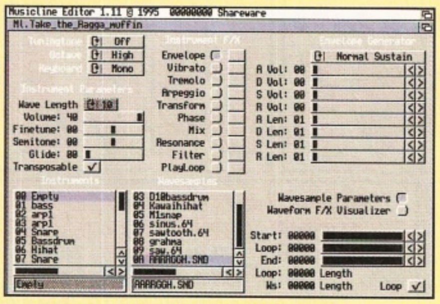
Our ftp site can be accessed using a Web browser or simple ftp software. The details and addresses you need can be found in the PD guide on our Coverdisks.

MusicLine Editor 1.12

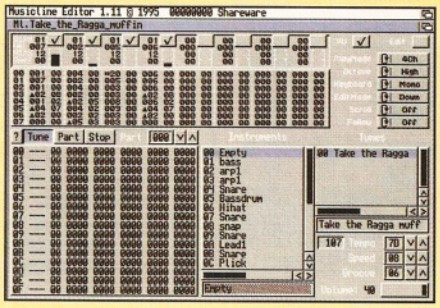
If this month's Coverdisks have whetted your appetite for music, then this program is a treat. The result of four years coding, the programmers reckon this music editor is unlike any other. We're sure that there are those who are loath to leave the likes of OctaMED for any program, but you'd be advised to check MusicLine out. It's very well put together and very powerful. The instrument editor is pretty comprehensive and the sequencer is also easy to use.

Although they claim it is not like the other packages, the method of writing modules is recognisable – in essence, click on edit, choose an instrument and where you want it to go in the module and press a key, where different keys represent different notes. It means you're not starting entirely from scratch. There's just a heck of a lot of flexibility in this package, which is impressive indeed, considering it's only version 1.12.

We were in contact with the authors and it's even better to hear that a set of tutorials are planned, as well as a musicline.library player and that registered users will also get a replayer to allow you to implement the tunes in your own productions. The package is



MusicLine allows you to make some changes to the instruments and adjust the sounds.



A fully-featured music module editor.

Shareware, with a reasonable registration fee of £13. Budding musicians should take a look, or listen even.

Archive: MLED112.lha

Source: aminet/mus/edit/

Verdict: 95% **Star buy**

WB BootPics 95

Windows '95. Multitasking, blah, blah. We were going to have a bitch about it, but we can't be bothered. This archive has got three clone pictures that are intended as boot-up pictures for Amiga hard drive users. As you'll have guessed, they've been inspired by Windows '95. OK, so there's only three pictures there, but they are really well drawn and Amiga Technologies would do well to start thinking about how they want their official boot up screen to appear, because it would be nice to finally lose that exciting Shell screen.

Archive: WB_BootPics95.lha

Source: aminet/pix/icon/

Verdict: 80%

SFX

No, this isn't a spin-off from Future's science fiction magazine. This is a rather interesting audio sample manipulator. Cor, music must be in the air this month. SFX is a modular package, which means you can have several different windows open, like loaders, savers, effects, player...

The author has obviously been influenced by the art package ADPro, because the GUI is very similar. That's not a criticism by any means. It makes it very easy to use. The only question is why you'd want to close any of the windows because you need them all open (we wish the program hadn't opened up with each one in the



Tongue-in-cheek collection of WBStartup pics.

same screen position, because we had to move them all). The only one you don't need is the save window, because that option is disabled in this version. The effects are varied, including an interesting morph option, that allows you to mix one sample into another.

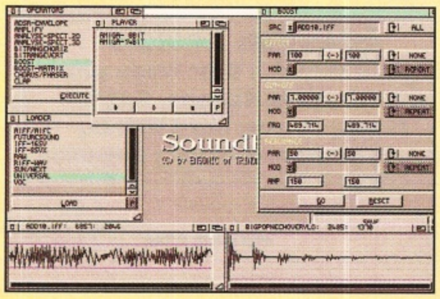
The only trouble is that this can take a hell of a long time. On an 030, at top quality, it took over an hour to morph one 2K sample into another! As we said, that was at top quality – you can sacrifice that for speed.

There are two versions for different processors, and this is definitely another program that should interest audio enthusiasts, but we'd advise you have a better processor than the 68000 if you want to do complex effects, unless you're prepared to leave it going overnight. The registration fee is 30DM or $20 – time was when that was only £10, but thanks to economic forces, it'll cost you nearer £15 today. Still, it's a fine program – and you can decide for yourself whether it's worth it before shelling out the cash.

Archive: SFX_20.lha & SFX_20_guides.lha

Source: aminet/mus/edit/

Verdict: 90% **Star buy**



SFX offers many effects, but can be quite slow and this is only a demo.

watch the progress as you do something else. There are a couple of others too.

This is a very good collection of utilities. If you don't have them from our Coverdisks, then check this disk out. Eight utilities on one disk.

Verdict: 90% **Star buy**

ImageFX Extras

Another cool art program gets boosted with some extra utils, I thought. Er. Not really. There are three programs on this disk, so nowhere near as many as on the ADPro disk, but it is still 99 per cent full and quantity isn't the name of the game.

The first two programs sound fine. One is an ARexx script which allows you to convert pictures to icons in ImageFX. Fine, but don't bother, there are loads of PD utilities that can do this directly – Picticon, IconDeluxe, etc (which have both been on AS Subscribers disks). The second is a loader, letting you load Rayshade native output files. Wow! Can't say I've ever needed to. Still, if you have, there you go.

The last program is called NewTool. I tried to find out what it had to do with ImageFX, but failed. Strangest thing is, this is the best program on there! It really is excellent and uses the whatis.library (supplied) and a prefs file, that is easily set up using the GUI. You can then send files through it from the CLI and it sets the default tool to the one you've set. You don't even need to use the prefs file; you can just use the command to change the tool directly.

However, I think that setting the prefs is best. You can say what you want to use to view guides, docs, pictures (different programs for different filetypes even) and then whenever you get a file that comes up with that annoying "can't open your tool" requester, simply belt it through Newtool and you're away. I don't know why it's on here, but I'm glad it is. It saves an otherwise mediocre disk. Congratulations to program author, Michael Barsoom.

Verdict: 65%

Next month we review even more brilliant PD, Licenceware and Shareware programs. Amiga Shopper Christmas issue is on sale on 14th November 1995. ■

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Talking Shop

This month in Talking Shop: The Amiga is back, but at what price? and five lucky readers win an Aiwa CD-ROM drive or speakers.

We've received hundreds of letters from readers astounded at the cost of the new A1200s. But, as we explained last month, these Amigas are being bundled with some great free software, worth around £460. However, you did make some very pertinent points. Here are a selection of your letters. What do *you* think?

Rose coloured specs?

£25 Winner

It seems that since Escom acquired ownership of Amiga technology all the Amiga magazines have been going loopy. Everyone seems to be under the impression that things are going to be all rosy just because the Amiga is going back on to the assembly line and into the shops. Now, hold on a minute folks, let's just think carefully about this...

There are quite a few things working against the Amiga that are preventing it from making any sort of respectable comeback. Only a fool would argue that the PC is not the most popular (in numbers) computer system. The argument that a decent PC system would cost as much as a small space program just does not hold any more. A casual flick through the adverts in this month's PCW Plus will show you that, exclusive of VAT, a 90MHz multimedia Pentium machine will cost you about £1,200. Hell, even Escom are advertising P75s with 8Mb of RAM and 850Mb HDs for just under £1,000.

Meanwhile, the Amiga 1200, the machine on which the future of the Amiga depends, is making its return at a price of £399. Now wait a minute! That is how much I paid for mine three years ago! Aren't computers supposed to get cheaper as they get older? And let's face it, the A1200 is old and under-powered in comparison to today's opposition. And, as much as some die-hards out there would like to think to the contrary, the PC is the opposition.

My point is, the price situation is not going to tempt new computer buyers to choose an Amiga. Imagine the scenario where Joe Public walks into the Escom store with £1,500 to spend. Now, the only Amiga he can buy is the A1200 because the A4000 costs over £2,000, and that's without a CD-ROM drive; while on the other shelf there is a Pentium 90 (processor advertised on TV as the DBs in processor-land) with CD-ROM, bags of memory and HD space, fancy graphics and Windows '95 – which has been advertised since who-knows-when.

As far as Mr and Mrs First-Time-Computer-Buyer are concerned, a computer has to be multimedia, it has to have CD-ROM, and has to have this card and that card, it has to be in a big box, it has to have Windows, it has to have Intel inside... Doesn't take a genius, does it?

And the whole thing about PCs is perceived value. I know a lot of people bought PCs mainly for playing games. But the thing about the PC is that it has been sold for years as a business and education machine. So, after you finish playing the latest Doom game, you can do your accounts and teach the kids how to read. Sure, you can do all that with an Amiga, but the uneducated public doesn't know that.

The other thing working against Escom and the Amiga is that even if they manage to achieve decent Amiga sales before the release of the next-generation Amiga, who the hell is going to buy them? By the time the new Amigas appear in the shops, many more Amiga users will have expanded their current machines even more. Are they going to want to sell up and upgrade? Escom have their work cut out to tempt existing Amiga users to buy new machines. Strike two...

The thing is, the Amiga has lots of potential killer applications. For example; Photogenics, ImageFX, LightWave, Wordworth, Final Writer and Scala. Escom needs to invest money in these applications. It has to let the public know how good they are and that the only machine to run them on is an Amiga. Escom needs to advertise like no company has ever done before. Without close co-operation with the major software and hardware companies, I am afraid the Amiga will not cheat death one more time but will have to resign itself to computer heaven with the Atmos and Jupiter Ace.

Jonathan McBrien, Fermanagh

Stylus on ProVector

Stylus, Inc. would like to thank you for reviewing our software. ProVector 3 in your September '95 issue. However, we are compelled to point out that Mr Hickmott's company, LH Publishing, is actively marketing software in direct competition to ProVector. We are confident that a Future Publishing magazine would not knowingly publish such an article without, at the very least, pointing out the bias of its author.

It is useless to go through Mr Hickmott's review point by point. We can only hope that your readers, once informed of the author, will view some of his more subjective, negative comments with appropriate scepticism.

W. Jeffrey Blume
Stylus Inc., USA

Aiwa compo winners!

We ran a competition in our October 1995 issue for five people to win either one of two Aiwa ACD-300 CD-ROM drives, or one of three sets of Aiwa SC-C55 multimedia speakers. We have had hundreds of entries. But sadly, only five people can win and those fortunate readers are:

Aiwa ACD-300 CD-ROM drive:
M. J. Smith from Portsmouth, Hants
Adam Freeman from Coventry, W. Midlands

Aiwa SC-C55 speakers:
Anne Weyens from Belgium
Andrew Bone from Colton, Cumbria
Mr. P. P. Bonner from Redcar in Cleveland

More about the girl

I thought your April edition had arrived early – A1200s for £399, and that emaciated, crippled, not-sure-which-way-it's-going logo. What brilliant jokes! But then I saw that I had the October issue and you were being deadly serious. I was under the impression that Escom wanted to save the Amiga, not kill it off. This looks like Commodore all over again...

But perhaps things are not that bad. A couple of years ago I bought an A1200 with a 120Mb hard drive and it cost me more than £550. I added a 4Mb RAM expansion and it took me ages for my arms and legs to grow back. The basic Escom A1200 looks pricey, but an expanded model will cost much less than I paid then. I hope so – I want to continue using the world's best computer for years to come.

John Filsak, Nottingham

What you can do...

The Amiga is now finally out of the doldrums, it is official. Hooray! But for how long? The Amiga has had a chequered history, but has been given a second chance by a PC manufacturing company. It is time Amiga owners stood up to ensure that their computer of choice does not become just another statistic, again!

Everyone can do something to ensure the Amiga's success. Just because you can't program or haven't got enough money to buy the company off Escom, it doesn't mean that you cannot make a positive contribution towards the Amiga community.

Graphic artists and music masters have an easy job of deciding what to do. Programmers have a less easy time of it. I have to use PCs every day – the main reason why they are used in business is because of the variety of software produced for them. There is software which can only be found on the PC and nowhere else. The market for these products may seem small, but it is what has helped make the PC the computer

Subjects of interest and how to contact us

£25 Winner

We want you to write in to Talking Shop to tell us which Amiga-related articles you would like to see featured in Amiga Shopper. AS is, after all, your magazine, and for us to keep giving you all the information you want, we need you to tell us what else you are looking for. It could be an interview with an industry figure, a Supertest of monitors, a tutorial on a particular program or a review of a certain product that we haven't done. We can't promise that everyone's ideas will be used, but if several people ask for the same feature, then we will act upon it.

Or you could just write to us and tell us what you think of Amiga Technologies' plans for your machine and how you think they should be developing the Amiga.

And remember that the Star letter of the month wins £25! Send your ideas in to:

Talking Shop, Amiga Shopper,
Future Publishing, 30 Monmouth Street,
Bath, Avon BA1 2BW.

Alternatively, E-mail your letters to:

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All the letters received at these addresses will be considered for publication, unless you specifically advise us otherwise.

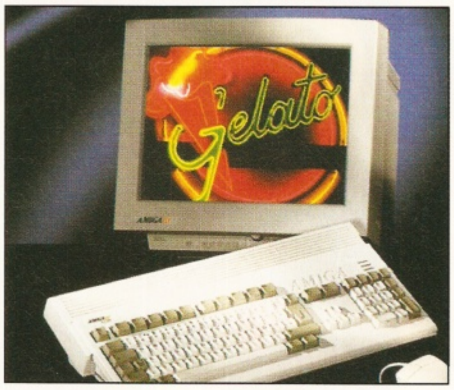
for the masses. Could I urge programmers not to code yet another text editor or another paint package. The market is saturated with them.

Software houses should be looking at what has made the PC so significant. The PC has survived due to the ever-increasing power of its processor and RAM size. Imagine running Windows '95 on a 286! Amiga owners should be encouraged to upgrade to higher specification machines with software that can really use those additional capabilities. Final Writer has shown the way by insisting that every user of version 4 must have a hard drive and at least 2.5Mb of RAM, meaning that a standard A1200 with hard drive will no longer suffice.

Microsoft Word though can still hold its head up high and claim it is the best word processor ever simply due to the amount of options and configurations it possesses. MS-Word gives the user options that have never existed in Amiga software. Come on, why isn't the Amiga doing this? No longer should software refrain from being hard drive installable, and isn't it about time we saw major applications and larger games being released on CD-ROM? Higher spec machines should not only be for serious software either. Gloom written for a 25MHz 68040 with a 24-bit graphics card could do for the Amiga what Doom did for the PC.

If you are like me and have little computing talent then you can still get the Amiga moving again by simply doing what I, and many other loyal supporters of the Amiga do, treat yourself! Upgrade your computer and buy original software. We have learned in these past months that software houses only stay with computers that can give them good profits, and why not? After all, they have families to feed and to stay with a dying computer platform riddled with piracy doesn't make good business sense. We, the general public, are the most important factor in the revival of the Amiga. So buy that new hard drive you've always wanted, get that new RAM expansion or software package. And if you can't even afford that? Simply register that Shareware program that's been on your system for months, or even just delete all pirated and unregistered software on your system. Every little helps.

We all believe the Amiga is one of the best computer systems ever designed, but writing letters to magazines telling everyone how useless PCs are helps nobody. Money does not have to be a problem; I am a student suffering another year at University with 10 per cent less grant than last year, nevertheless I still ensure



A1200s like this one could be in a shop near you!

that any software I ever need is bought new and as an original. Let's make a positive stand for the Amiga and this time we can really shake up the computer populace.

Mr. R. D. Martin, Birmingham

And another thing...

After reading the main news story in issue 54 about Amiga Technologies' plans for the A1200, I feel I must ask the question on everyone's lips: What the hell are they playing at putting the machinery out at that price?

This just baffles me. Before, they said they would have a base system for about a quarter of the price of their lowest-priced PC system, about £250-£300? Then they go and give us this? £399 for an A1200 is a higher price than the moribund Commodore were selling them for before they "guru'd". Without any change in the specification, I fail to see how anyone but the most diehard of Amiga fans would be tempted to buy one. They would need to have an awesome bundle of software with it to grab the attention of the general public.

With most people opting for the boring PC for their word-processing, 'Netting and gaming needs, Amiga Tech. are going to have their work cut out convincing people that the Amiga can still cut it. Advertising on both TV and in the press are, I think, top priority. There should be a big push in marketing as the machines hit the shops and then another one nearer to Christmas, otherwise the tsunami of PC and "super console" marketing will hit home and sweep the Amiga even further to the back of the public's consciousness.

Brendan McAvinchey, Co. Armagh

Sadly, with the demise of Commodore and the lengthy buy-out saga came the inevitable decline of the Amiga.

But now Amigas are back on sale in the High Street. Hurrah! However, although we are all obviously elated that Amiga technology has returned, there's still an unsettling time ahead of us. Because Amigas have effectively disappeared from the market, and so from the general public's minds, for over a year and a half, only time will tell whether people will now start buying them instead of PCs. And because PC technology has been thrust down our throats with loads of TV advertising – especially with the release of Windows '95 – there's a long haul back into the limelight.

We all know that Amiga technology has been multimedia for years and that the Amiga's potential is limitless, but now its up to Amiga Technologies to produce new, improved Amigas at competitive prices. And to advertise them. ■

Advertisers' index

The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER

Next **month**

Merry Christmas!



OK. OK. We know it's not Christmas yet, but next month is our Christmas issue. And, boy, have we got a stockingful of goodies for you. First, we have an in-depth interview with F1 Licenceware, then David will be looking at the problem of viruses on the Amiga and how to combat them. Plus, we'll have another 3D tutorial from Mojo; Steve Bye will be talking about AMOS again and then there's our Comms and DTP stuff too. David is already busy sorting through his sacks of mail to find some more PD gems to review and our experts are wracking their brains to answer all your Amiga problems.

AMIGA SHOPPER

MAG*SAVE

Reserve your copy today!

Remember that the easiest way to ensure you get hold of a copy of the Christmas 1995 issue of Amiga Shopper is to reserve yourself a copy at your local newsagents. It's simple – cut out this form, or photocopy it, hand it in to your newsagent, and you're laughing.

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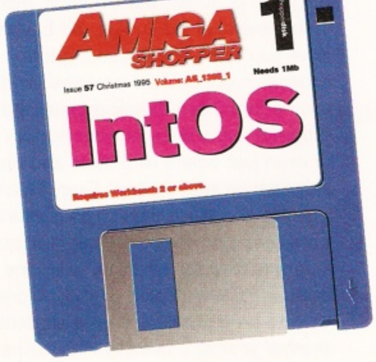
To the newsagent: Amiga Shopper is published by Future Publishing ☎ 01225 442244.

IntOS on the disks

Next month we have IntOS from OTM Software on our Coverdisks. IntOS is an extension for AMOS that adds 120 new commands to the existing AMOS command-set.

Amiga Format said of IntOS in a review in their October issue: "IntOS is a must for any AMOS-programmer wanting to write professional-looking applications". They gave it 88 per cent.

The space left on the two Coverdisks will be completely full of carefully-selected programs and utilities, including another popular program from F1 Licenceware.



Christmas issue **57.** On sale Tuesday, **14th November**

Liana

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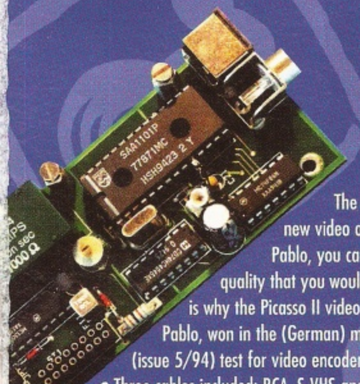
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- English manual



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Shopper**disks**

*These remarkable Coverdisks have over **5Mb** packed on to them. There's a full commercial package, a full Licenceware program and tonnes more Shareware. Check these out...*

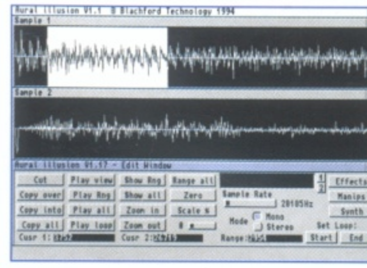


Aural Illusion

We're giving away the complete Aural Illusion 1.17 program this month. Aural Illusion can edit and create samples. It includes over 20 effects, which can be varied to make different alterations. Then there's a further 30 fixed manipulations you can apply. The package also includes a full synthesizer to create your own sounds for mixing with samples.

To ensure top quality, the samples are held in 16-bit resolution in memory and all processing is made in 32-bit.

Of course, as well as all the superb effects, Aural Illusion can also perform the more mundane functions, like cutting, copying and pasting, that you need from a sample editor, including the ability to optimise samples.



If you're into sounds, you can't afford to miss out on this package.

Blackboard 3



The second full program on our Coverdisks this month is F1 Licenceware's popular image processor, Blackboard 3. This program has been rated at over 90 per cent by the majority of Amiga mags (AS included). It offers a huge number of effects that can be used to transform your pictures into masterpieces.

Blackboard 3 is so powerful that you need a minimum of two disk drives to make the most of its features.

Shopper**Choice**

As usual, the cream of PD and Shareware has been gathered and divided into appropriate zones for you.

Utility**Zone**

A bumper collection of utilities this month, with seven useful programs on offer. There's a new version of **Associate**, for adding icons on WB, with new features added for Amiga Shopper. **AddPower** can beef up your WB and **AutoStart** can make WBStartUp more powerful and configurable. Plus **Colors, Multiblank, Surveymem** and **TrashIt.**

Technical**Zone**

Seven programs aimed at the technically-minded and CLI user, with programs ranging from a CLI calculator and CLI database command to a splicer with varied options for splitting files. There's also a couple of configuration files for Directory Opus in response to the numerous requests for them.

Creative**Zone**

Final Wrapper

Direct from the author, the latest version of the ARexx program and macros that allow Final Writer users to add text effects that are otherwise impossible. This is a must for all Final Writer owners.



Mandelbrot

A fractal generator that allows you to explore the amazing world of these strange mathematical phenomenon. Hi-res and low-res versions included.

3D**Zone**

More objects for Imagine and LightWave users as well as tutorials for Imagine novices.



Information**Zone**

The popular new zone that includes a constantly updated and comprehensive PD House directory as well as the guide to User Groups. Both come in two formats to suit different WB versions. Also included this month is a guide to the Amiga's library system with information to suit every level from beginner to expert.

Application**Zone**

DB2.8

A powerful and configurable database that allows you to sort your information and store it in a form that suits you. Full manual and on-line help is included.

PicView

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Electrics

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